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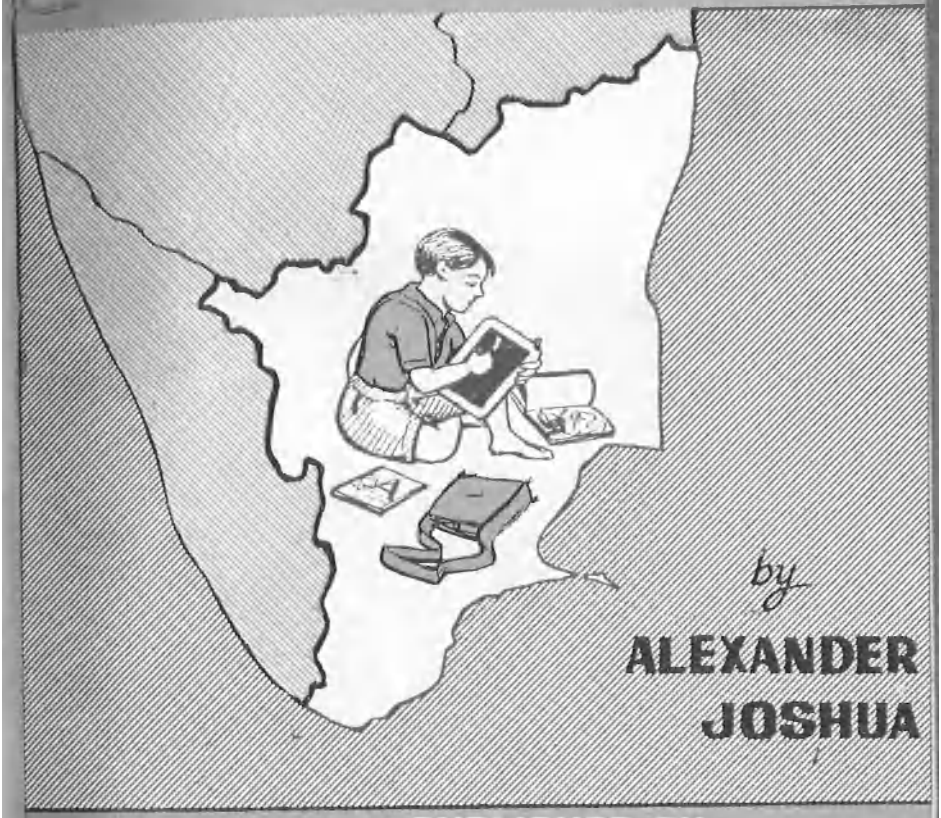
RURAL PRIMARY EDUCATION AND ADULT LITERACY IN TAMIL NADU



by

ALEXANDER JOSHUA

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FOR
MADRAS INSTITUTE OF DEVELOPMENT STUDIES

RURAL PRIMARY EDUCATION

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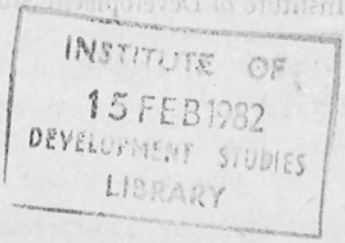

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FOR

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WITH THEIR ASSISTANCE

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PREFACE

At a time when for the first time in its independent existence, the Union Government has decided to include elementary education and adult literacy in the minimum needs programme, a programme which involves "provision by the State of some of the basic needs of the people in these (low) income groups", as pledged in the Draft (Sixth) Plan for 1978-83, it is appropriate that this study on Rural Primary Education and Adult Literacy in Tamil Nadu is completed and made available to assist the State and the country in meeting that pledge.

The quantitative and qualitative characteristics of Primary Education and Adult Literacy in the state are well summarised in the study. On the qualitative side during the two decades 1954-74 enrolments have more than doubled in primary education due to the demographic expansion and the drive for universal primary education; literacy attainments also nearly doubled in percentage terms during that period. These are solid achievements against some centuries of educational neglect preceding independence. The achievements include various qualitative inputs into the educational system such as providing for all teachers being trained, keeping down teacher-pupil ratios, providing midday meals and free text books, periodic revision of the syllabus and making the syllabus increasingly science based. On the literacy programme side, the major qualitative gain was to link the programme with the Green Revolution and start on the road to functionality of literacy education in the Farmers Functional Literacy Programme.

The set backs faced by the system are, however, even more glaring. The first is the enormous wastage in the primary school system which means instead of speaking of a primary

school enrolment of 95 percent, we should in all honesty speak of a 45 percent attendance in the primary school. The detailed case study of dropouts and repeaters outlined in chapter 3 shows a steeply increasing number of both repeaters and dropouts. If to this data is added the number of pushouts who are about half the dropouts, and leftouts who are 4 to 5 percent of the age group and the greater impact of wastage on girls and the rural areas generally, the qualitative as well as the quantitative picture is grim indeed.

Similarly the literacy education programme shows rural literacy being half the rate of urban literacy (table 18), women's literacy being also half of men's literacy (table 17) and the scheduled castes, scheduled tribes literacy being less than half, of that of the general population (table 20). The most woesome fact is that illiteracy of scheduled tribes women which is as high as 97 percent while that of their men is 90 percent, and that of scheduled caste women which is 93 percent compared to 73 percent of their men (table 21). If there is to be a priority in our literacy effort, it should be (a) the rural areas, (b) within the rural areas for scheduled castes and scheduled tribes and (c) within the scheduled castes and scheduled tribes for women.

There is another important district correlation presented by the study and that is that the 'drop outs from the primary school are the highest where the illiteracy percentage is the highest. Table V of the census of India 1971 shows Dharmapuri District with the high illiteracy rate of 87·9 percent and table 14 shows the parallel highest dropout rate of 42·6 percent for boys and 56·4 percent for girls for that district. The second place in this unfortunate district ranking is Salem with a 69·6 percent illiteracy rate and the second highest dropout rate of 37·5 percent for boys and 44·0 percent for girls. An illiterate home background is one important cause for children

dropping out of school, not only because an illiterate home is also a home of poverty, where the opportunity, cost of schooling despite all the inducements of free education, free meals, free books, etc., are not compensated.

Against this background the 12 recommendations made to meet the quantitative demands and qualitative requirements of rural primary education ranging from restructuration of the system, pre primary schooling, curriculum with science and work emphasis, physical education and games, parental education, school buildings, timing and duration of school sessions to replace the current single point entry and sequential promotion by multi point entry and treating the first five classes as one single group with the hours of schooling adjusted to the rural agricultural hours of work, evaluation, text books on planning, and those made with regard to Adult literacy ranging over the running of special classes, functional literacy, welfare cum literacy centres, women's education, teaching methods and materials and research, are appropriate with many of the recommendations already accepted and put into operation by the government.

It is no accident that the current Plan has linked universal Primary Education and Adult Literacy; one cannot be attained without the other. The State will, therefore, have to follow the Union Plan lead in stepping up the financial allocation to primary education at some cost to secondary and higher education, and in increasing nearly one hundred fold (compared to Fifth Plan) the allocation to adult education. This must be accompanied by continuing the research and application of forging links between rural primary and adult education as part of a system of synthesis between formal and non formal education in the State.

In undertaking the study, the author, Mr. Joshua, was helped by the Directorates of School Education and Non formal

Education, the State Council of Education Research and Training and the State Planning Commission to all whom thanks and gratitude are expressed. The documentary and statistical services of the Institute were also of assistance. The specific items and judgements expressed in the study are, however, those of the author, Mr A. Joshua.

I commend this study to education specialists, teachers, students, and the government as a useful source of documentation for further policy decisions and action-oriented research.

Madras
15th October 1978 Malcolm S Adiseshiah

CONTENTS

CHAPTER I

INTRODUCTION

1. Aims of the Study

The aim of the monograph is to highlight the significance of primary education and the role of adult literacy, with special reference to the rural areas of the State of Tamil Nadu.

Primary education in the State is taken to cover the school classes I to V and pupils of the age-group 6 to 11 years. It is the first stage in the school system extending totally to 11 years, administratively divided into three stages, namely :

(i) Primary school, pertaining to classes I to V and pupils 6 to 11 years,

(ii) Middle school, classes VI to VIII and pupils 11 to 14 years and

(iii) High school, classes IX to XI and pupils 14 to 17 years.*

Rural primary education is taken to mean the working of the educational system at the first level in the rural economy, emphasising the influence of the economy on the educational system on the one hand and the benefits of the educational system percolating into society on the other.

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*The eleven year school system, 1 year Pre-University and 3 years degree course is now to be restructured as 10 year school and 2+3 University course from the year 1977-78. In the present Higher Secondary Schools the XIth standard is equivalent to the Pre-Universiy-course.

The major aspects of primary education in rural areas, which are studied are:

(i) The demographic and socio-economic conditions which characterise the general milieu in which the education system has grown and operates and which are factors external to the education system and lie beyond its control, but have abiding influence on the system. These factors may be briefly stated as the rural way of life, poverty, prevailing illiteracy, extent of urbanisation and the still lingering influence of the caste system in society;

(ii) The educational facilities provided by the government and other educational authorities i.e. the number of schools, teachers, inducements offered such as mid-day meals, free supply of books and uniforms etc.;

(iii) The pattern of enrolment of pupils and the distribution in various classes;

(iv) The demand for education, which at any given time in empirical terms, is the number of children of school going age; and

(v) The pattern of retention in classes and the extent of wastage.

Wastage in any given course of education has three major components : (i) wastage for the course arising out of stagnation, (ii) wastage arising out of drop-outs and (iii) wastage due to non-utilisation of educational facilities provided. When pupils stay in one class for more than the prescribed period, which is usually one year, there is wastage due to stagnation. Pupils who discontinue education, without completing a course or even earlier, give rise to wastage due to drop-outs. The third component of wastage is due to students who are not able to or who do not make use of the training facilities in the school.

As a twin to the study of primary education, adult literacy in the State is also reviewed.

Literacy is defined in the 1961 Indian Census Report as the ability to read and write. The test for literacy is taken to be satisfied if a person can read and write a simple letter in his mother tongue or in any other language. The internationally accepted definition of literacy is the equivalent of four years of primary schooling, which is the educational level that would prevent a person from lapsing into illiteracy. The major aspects reviewed in connection with adult literacy are : the extent of illiteracy in the State, distribution of illiterates-age, sex and districtwise—and adult literacy promotion.

For the teaching of the illiterates, the present accepted form is what is termed as Non-Formal Education including functional literacy and adult literacy. Non-Formal Education is defined as any organised educational activity outside the established formal system - whether operating separately or as an important feature of some broader activity, that is intended to serve identifiable learning clienteles and learning objectives. The main ingredient of a functional literacy programme is that it is work based i.e. literacy is built around the work or occupation in which the person is involved. Adult literacy on the other hand, is meant to make an illiterate to learn reading, writing and arithmetic as the main objectives with no regular training in any particular occupation or work.

2. The Problems

The problems connected with the educational system and adult literacy in the State may be summarised briefly as follows:

Free education for all children upto the age of 14 years is a commitment in the Constitution of India. So provision of educational facilities became a statutory obligation and Tamil Nadu religiously implemented it. However, the educational

system that developed, after independence, was on the basis and model of the system that existed prior to independence, without radical structural changes or the diversification required to create manpower for economic development and social change. It did not take into account the convenience and actual requirements of the society.

Further, these educational facilities were offered to a population predominantly rural, employed principally in agricultural and rural occupations, to a population living in mass poverty, and to a population predominantly illiterate.

These socio-economic factors, although exogenous to the education system over which the system has very little control, have their influence on education. Thus the inherent inadequacies of the education system, the socio-economic conditions and certain social customs and traditions caused and still cause some difficulties in the progress of education which are reflected in wastage, illiteracy and unemployment. Hence the reform measures must cater to covering the inadequacies of the established formal education system and also for formulating a method for education of the drop-outs and illiterates.

The two main universal aspects of education that enter into a study like this, are the human aspects - the child and his right to education and the need for educating the illiterates. But a recognition of these rights has no practical meaning unless acceptable means are devised for meeting the educational requirements of the children and the illiterates. Hence the learning needs of the children and illiterates have to be stated in operationally meaningful terms.

On the basis of the above considerations an attempt is made in the monograph to identify the shortcomings of the existing education system, with special reference to Primary Education as applicable to rural areas and to identify the extent

and causes of adult illiteracy in the State of Tamil Nadu. Some changes in the Primary Education system, with special reference to wastage and a phased programme for increasing adult literacy in Tamil Nadu are suggested.

The monogragh consists of five chapters: Introduction ; Population, Economy and Education—The Interface; Wastage in education and its causes; Adult Illiteracy and Recommendations.

I wish to acknowledge with thanks all the help received from the Education Department of the State and its Officers in providing statistical data and information and the suggestions made by my colleagues in the Institute, particularly the guidance from the Director.

CHAPTER 2

POPULATION, ECONOMY AND EDUCATION —THE INTERFACE

In this Chapter a demographic and socio-economic empirical picture of Tamil Nadu is drawn to understand:—

1. The numerical dimensions of the society to which the education system has to cater as a social investment;

2. The geographic area and extent in which it has to be administered;

3. The socio-economic milieu in which it operates, which would bring into focus the extraneous influences on the education system; and

4. The extent of social and economic changes education has to foster to be of value in the progressive development and growth of the State - limited principally to the aspects of primary education.

This picture is followed by a numerical analysis of the number of schools, children in school classes and teachers appointed which would evidence the demand for education and the corresponding facilities and amenities provided and the achievements of the existing education system in the State. This study would reveal the shortcomings of the education system in relation to its desired role. The financial implications are also briefly reviewed.

SECTION 1

Tamil Nadu - Demographic and socio - economic picture.

AREA, POPULATION: The State of Madras was born on 1st November 1956 as a unilingual state with Tamil as its official language, on the reorganisation of the Southern States. It was renamed Tamil Nadu in 1968.

Tamil Nadu covers an area of 130,069 square kilometres comprising of 14 districts and 103 taluqs (14,124 villages) constituting 3·98 per cent of the geographic area of the country The population of the State was 336,83,953 (169,10,978 males and 167,75,975 females) in 1961 and 411,99,168 (208,28,021 males 203,71,147 females) in 1971, being 7·67 per cent in 1961 and 7.51 per cent in 1971 of the total population of India, ranking 6th and 7th respectively among the States in population. The density of population varies per sq. km. from 174 in Dharma puri to 19,293 in the city of Madras, the capital of the State The decennial growth rate of the population was 11·85 per cent and 22·30 per cent in the decades 1951-61 and 1961-71 respectively. The corresponding growth rates for the whole of India were 21·64 per cent and 24·57 per cent. The largest percentage increase in population has been in Madras (22.11 to 42·81 per cent) and Tiruchirapalli (8·36 to 20·52 per cent). while there occurred a considerable reduction in percentage increase in Nilgiris from 31·30 per cent to 20·70 per cent. The decennial growth rate of population for 1961-71 is 38·44 per cent for urban and 16·03 per cent for rural areas. The district-wise figures for area, population, density and percentage increase are given in Table 1.

TABLE 1

Area, Population—Tamil Nadu

Sl. No.	District	Area Sq. km	Population ("000") 1951	1961	1971	Percentage increase 1951–61	1951–71	Density per sq.km.	Females per 1000 males (1971)
1.	Madras ..	128	14.16	17,29	24,69	22.11	42.81	19,293	90
2	Chingleput ..	7,920	19 58	21,96	29,08	12.17	32.38	367	948
3.	North Arcot ..	12 265	29 00	31,46	37,56	8.51	19.37	306	971
4.	South Arcot ..	10 898	27.77	30 48	36 18	9.77	18.69	332	959
5.	Salem ..	8 643		24,72	29,93	8.44	21.07	346	963
6.	Dharmapuri ..	9,643	33 71	13,32	16,78	22.05	25.94	174	959
7.	Coimbatore ..	15.673	31 54	35 57	43 73	12.78	22.93	279	957
8.	Nilgiris ..	2 549	3,12	4 09	4,94	31.30	20.70	194	944
9.	Madurai ..	12 629	28,92	32,11	39,38	11.05	22.63	312	936
10.	Tiruchirapalli ..	14 291	29,44	31,90	38,49	8.35	20.65	269	932
11.	Thanjavur ..	9,735	29,83	32,46	38,41	8.82	18.33	395	934
12.	Ramanathapuram ..	12,578	20,82	24.22	28 60	16.33	18.11	227	1042
13.	Tirunelveli ..	11,433	25,05	27 30	32,00	8.99	17.22	280	1042
14.	Kanyakumari ..	1,684	8,26	9,97	12,22	20.64	22.63	726	972
	TAMIL NADU ..	130,069	301,19	336,87	411,99	11 85	22.30	317	978

Source: Tamil Nadu—An Economic Appraisal. 1971 and 1973.

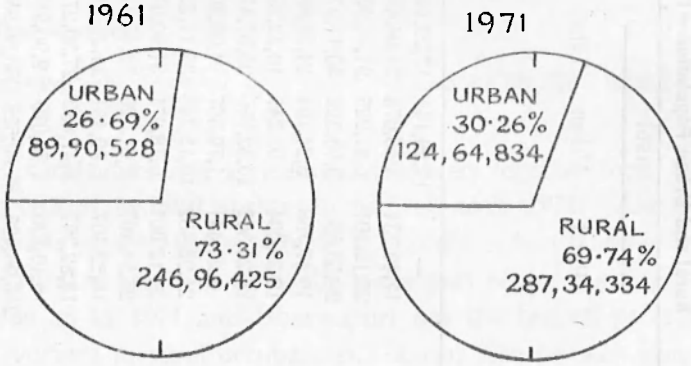
Coimbatore, Tiruchirapalli and Madurai are the three districts with largest areas in that order but in population Madurai has a larger population than Tiruchirapalli. It could also be seen from the data that both in Ramanathapuram and Tirunelveli the proportion of female population is more than the male.

Rural Nature of Population

Tamil Nadu has a predominantly rural population. From Chart I it will seen that the rural population was 73.31 per cent (246,96,425) of the total population in 1961 and 69·74 per cent (287,34,334) in 1971. However, the percentage of rural popu-

CHART—I

URBAN AND RURAL POPULATION



lation has diminished during the last decade. District wise figures for rural and urban population for 1961 and 1971 are given in Table 2 which shows a definite increase in the percentage of urban population to total population in all the districts. This percentage increase is highest in Chingleput—20·75 to 34·77 and in absolute terms the population has increased from 4·55 lakhs to 10·10 lakhs showing a very high migration to urban areas. The least increase in percentage is in Thanjavur district, 20·38 to 20·56, indicating a more or less stable rural

TABLE 2

Rural and Urban Population—Tamil Nadu

Sl. No.	Districts	1961				1971			
		Rural	Urban	Total	Percentage of urban to total population	Rural	Urban	Total	Percentage of urban to total population
1.	Madras	—	17,29,141	17,29,141	100	—	24,69,449	24,69,449	100.00
2.	Chingleput	17,40,734	4,55 678	21,96,412	20.75	18,96,909	10,10 690	29,07,599	34.76
3.	North Arcot	25,15,101	6 31,225	31,46,326	20.06	29,72,702	7,83 095	37,55,797	20.85
4.	South Arcot	26,55,651	3,93 322	30 47,973	12.87	31,04,726	5 12,997	36,17,723	14.18
5.	Salem	19,47,756	5 24,101	24,71,857	21.20	21,97,234	7,95 382	29,92,616	26.58
6.	Dharmapuri	12,39,004	93 247	13 32,251	7.00	15 33 834	1,43 941	16,77,775	8.58
7.	Coimbatore	25 25,302	10 32,169	35,57,471	29.01	23,16,936	15,56,242	38,73,178	35.59
8.	Nilgiris	2,29,441	1,79,867	4,09,308	43.94	2,50,780	2,43 235	4,94,015	49.24
9	Madurai	21,95,482	10,15,745	32,11,227	31.63	26,14,003	13 21,194	39,38 197	33.62
10.	Tiruchirapalli	25,12,007	6,78 071	31,90 078	21.26	29,91,808	8 57,008	38,48 816	22.27
11.	Thanjavur	25 84,407	6 61,520	32,45,927	20.38	30,62,694	7,88 038	38 40,732	20.52
12.	Ramanathapuram	18,22,307	5,99,481	24 21,788	24.75	21,13,545	7,16 662	28,00,207	26.11
13	Tirunelveli	18,82,397	8 47,882	27,30,279	31.05	21,71,019	10,29,496	32,00,515	32.17
14.	Kanyakumari	8,46,836	1 50 079	9,96 915	15.05	10,18 144	2,04,405	12,22,549	16.72
	TAMIL NADU	246,96,425	89,90,528	336 86 953	26.69	287,34,334	124,64,834	411,99,168	30.26

Source: Tamil Nadu—An Economic Appraisal 1973.

population. The lowest percentage of urban population is in Dharmapuri 8·58 (1971) followed by South Arcot 14·18.

Occupation

There is another aspect to this rural disposition. The vast majority of the working population is engaged in rural occupations as may be seen from the data below and Table 3 which gives districtwise figures of occupations.

	1961	1971
Cultivators	64,57,833	46,68,055
Agricultural labourers	28,28,374	43,91,906
Other workers	60,65,414	60,14,262
Non-workers	1,85,35,332	2,60,28,902

Cultivators and agricultural labourers together form 60·11 per cent of the total workers in the State as in 1971. Also in all districts except Madras, which is purely urban and Nilgiris, the rural occupations claim the major part of the working population as in 1971 and Dharmapuri has the highest percentage of workers in rural occupations. It can also be seen that the workers engaged as agricultural labourers have increased in all districts except Nilgiris in the decade 1961-71 while the percentages of cultivators have dwindled in all districts in the same period. The major social and economic features which have a bearing on education as evidenced from the data above are a large group of unemployed, a large percentage of population engaged in the primary industry, agriculture, which is seasonal and in which the whole family will be engaged including children and low incomes which are associated with agricultural labour.

TABLE 3

Percentage of Cultivators, Agricultural and Other Workers to total Workers

State/District	Percentage of workers to total population		Cultivators		Agricultural labourers		Other workers	
	1961	1971	1961	1971	1961	1971	1961	1971
Madras	30.47	28.96	0.02	0.14	0.04	0.13	99.94	99.76
Chingleput	43.39	35.17	35.14	23.54	25.31	31.72	39.55	44.74
North Arcot	46.69	36.59	51.45	37.37	17.06	29.58	31.49	33.05
South Arcot	45.83	35.92	49.46	40.78	28.66	35.29	21.88	23.93
Salem	50.77	40.26	45.23	34.23	13.47	26.66	41.30	39.11
Dharmapuri	52.33	37.74	71.74	55.73	11.68	24.07	16.58	20.20
Coimbatore	48.13	41.41	30.32	23.20	15.73	31.02	53.95	45.78
Nilgiris	45.87	39.13	18.93	4.92	11.02	7.54	70.05	87.54
Madurai	45.45	37.60	39.02	28.53	20.07	34.82	40.91	36.66
Tiruchirapalli	49.29	37.80	54.84	43.61	16.34	25.42	28.82	30.97
Thanjavur	42.00	33.94	36.28	28.85	32.71	41.31	31.01	29.84
Ramanathapuram	47.95	37.27	53.02	38.30	14.40	25.23	32.54	36.47
Tirunelveli	45.59	37.53	35.21	24.37	16.12	29.90	48.67	45.73
Kanyakumari	35.22	28.69	20.75	16.60	8.90	34.61	70.35	48.79
TAMIL NADU	45.57	36.67	42.07	30.97	18.42	29.14	39.51	39.89

Source: Census of India 1971 Series 17. Provisional Population Totals—Tables VI and VII.

TABLE 4

Scheduled Castes and Tribes Population 1971

S. No.	District	Scheduled Castes			Scheduled Tribes		
		Rural	Urban	Total	Rural	Urban	Total
1	Madras	—	2 59,119	2 59,119	—	928	928
2	Chingleput	6,12,149	1,51,842	7 63,991	23 354	3 835	27,189
3	North Arcot	6 28 430	97,456	7 25,885	69,382	1,345	70,727
4.	South Arcot	8 79,911	57,983	9 37,894	13,832	273	14,105
5	Salem	4,05 332	74 985	4 80,317	94,061	322	30,123
6.	Dharmapuri	2,16,708	11 117	2,27,825	29 524	539	94,383
7	Coimbatore	4,07,322	1,90 949	6,88,271	25 053	963	26,021
8	Nilgiris	45 618	47 076	92 694	13,904	5 965	19,869
9	Madurai	4,99,534	88 340	5 87 874	5,628	1,079	6,707
10	Tiruchirapalli	6,17,806	72 835	6,90 641	14,825	81	14,907
11.	Thanjavur	7,92,797	56 179	8 48,976	721	303	1,024
12	Ramanathapuram	4,06 196	53,420	4,59 616	492	564	1,056
13	Tirunelveli	4,07,679	97,277	5 04 956	795	818	1,614
14.	Kanyakumari	40 820	6,716	47 536	2 801	61	2,862
	TAMIL NADU	60 50,302	12,65,293	73 15 595	2,94,379	17,136	3,11,5115

Source : Tamil Nadu--An Economic Appraisal 1973.

Scheduled Castes—Tribes

The State had a population of 60,67,327 scheduled castes in 1961 (30,44,822 males and 30,22,505 females) and in 1971 their population stood at 73,15,595 (36,86,420 males and 36,29,175 females). Tamil Nadu has the highest percentage of Scheduled Castes among the Southern States—being 18·01 per cent in 1961 and 17.76 per cent in 1971 of the total population. The population of Scheduled Tribes in Tamil Nadu was 2,51,991 (1,29,185 males and 1,22,806 females) in 1961, while in 1971 the population grew to 3,11,515 (1,59,706 males and 1,51,809 females). The population of the Scheduled Tribes constituted only 0.75 per cent in 1961 and 0.80 per cent in 1971 of the total population. In the disposition of the scheduled castes and scheduled Tribes in the districts the largest number of scheduled castes are in South Arcot, Thanjavur, Chingleput and North Arcot and those of Scheduled Tribes are in Dharmapuri, North Arcot, Salem and Chingleput as can be seen from Table 4.

It could also be seen from the table that 82·74 per cent of Scheduled Castes and 94·49 per cent of Scheduled Tribes live in rural areas.

Age Composition

TABLE 5

Percentage of Population in Age-Groups

Age-group years	Percentage to total population			
	1961	1971	1961	1971
0—4	13.7	13.1	37.6	36.3
5—14	23.9	23.2		
15—24	17.3	18.5		
25—34	15.7	15.3		
35—44	12.2	12.2	54.1	54.7
45—54	8.9	8.7		
55—64	5.3	5.6		
65+	3.0	3.4		

Source: Census of India, 1961 and Tamil Nadu—An Economic Appraisal 1973. (Calculated).

As in 1971, children in the age-group 0-14 years form 36·3 per cent of the total population or more than one-third the total population of the State. This age-group is the one which is directly concerned with the formal education system. The age-group 5-14 years has the highest percentage (23·2) compared to other groups. The age-group 15-54 years represents 54.7 per cent of the total population. This is the age-group in which non-formal education and adult literacy programmes are applicable for the illiterates. These population data in age groups are of significance from the point of view of state investments in education. It is of further interest to note that as per the 1961 statistics about 40 per cent of the girls of the age-group 15-19 years were recorded as married showing certain social traditions of significance from the point of view of education and literacy among women.

Poverty

A large percentage of the population of the state lives in poverty, whether the word "poverty" is defined on the concept of minimum needs of an individual or on the minimum food requirements equivalent to 2400 calories per person per day for Tamil Nadu. In an earlier Institute publication "Poverty and Wage goods supply in Tamil Nadu" by M. Ramamurthy, on a monthly income of Rs. 38·75 in rural areas and Rs.54·49 in urban areas at 1969-70 prices necessary for minimal living, it has been estimated that 73·80 per cent of the rural population (20.35 millions) and 71·10 per cent of the urban population (8·36 millions) live below the poverty line. Applying the calories definition, 46 per cent of the rural people comprising 12·67 million people and 37·30 per cent of urban people comprising 4.28 millions do not have a nutritionally adequate diet.

Literacy

Literacy is dealt with in detail in Chapter 5. Only a passing reference is made herein to emphasise the social con-

ditions in which the formal education system operates. The percentages of literate population to the total population in 1961 and 1971 were 31·41 and 39·39 respectively, showing a low degree of literacy. Dharmapuri has the lowest literacy percentage among the districts. The literacy among women is far less than that of men and the literacy among urban population is higher than that of rural population. Further the percentage of literates among scheduled castes was only 14·66 and that among scheduled tribes 5·91 per cent as against 31·41 for the whole population in 1961.

Languages

Tamil Nadu is essentially an unilingual State with Tamil as the language spoken by 83·15 per cent of the population as per 1961 Census. Of the other language groups, there are 9·98 per cent of Telugu, 2·53 per cent Kannada and 1·19 per cent Malayalam speaking persons. With the exception of Gudalur taluq in Nilgiris district and Hosur taluq of Salem district, all other taluqs of the State have a Tamil majority, In Gudalur the rural people speaking Malayalam form 56·91 per cent of the population. Similarly Hosur rural area has a Telugu percentage of 37·07 and Kannada percentage of 31·34 in the population. In Kanyakumari district, which was previously part of the erstwhile princely State of Travancore, Vilavancode taluq has a percentage of 21·83 and Kalkulam 13·96 per cent. of Malayalam speaking people. On the accepted principle of mother tongue as the medium of instruction in schools, Tamil Nadu does not face therefore much difficulty.

Other Factors

The social and religious traditions of the communities in Tamil Nadu are well known and need not be elaborated here.

However, it has to be borne in mind that the traditions of untouchability and caste divisions had their effects on the educational attainments of certain classes of the society. Similarly the purdah system had its influence on the education of girls. Further the Scheduled Tribes represent a simple folk, living comparatively in isolation in hills and forests, representing relics of a past social order, touched very little by passage of time. It must also be remembered that the political dominance and government by a foreign power have had an impact on the education system, which is not yet worn out.

The above demographic and socio-economic picture reveals:

a large population (411.03 lakhs) expanding at the average rate of 2.23 per cent per annum (22.30 per cent decenially) of which 23.2 per cent are in the age group of 5-14 years directly concerned in the education problem. The numerical aspect of the population, its growth, the population of the school-going children and the geographic disposition are relevant from the point of view of provision of schools, appointment of teachers and administrative set up,

of this population 69.74 per cent live in rural areas which emphasises the need for bestowing better attention on rural education, although there is a marked tendency for greater increase of population in urban areas,

with a majority employed principally in rural occupations—agriculture and agricultural labour, indicating the bias required in the educational system,

with a large percentage of unemployed, living in mass poverty, the alleviation of which should be one of the objectives of education. The impact of poverty and unemployment on education is revealed in the following passage from the book "The Poor" edited by J. Alan Winter: "Poverty is closely associated with relatively low levels of education. Unemploy-

ment rates are higher for people with little education. Poor children usually go to poor schools. Schools in low income neighbourhoods are usually more poorly staffed, more poorly equipped and more poorly supplied with teaching materials. These poor schools furnish the child with little incentive, encouragement or opportunity to finish high school and go to college." The degree and extent of poverty has also a link with the incentives like mid-day meals and free uniforms that are now being supplied by the Government of the State,

with a literacy percentage of only 39,39 (1971) in which the literacy of women is by far less than that of men and those of scheduled castes and Tribes also being very low compared to the general population for percentage,

and with certain social and religious traditions which have retarded the growth of education among certain classes of the society and among women.

Clearly, therefore, the formal education system has a task ahead and the problem of illiteracy has also to be tackled on a State basis. For this purpose a review of the existing facilities in the school system is a pre-requisite.

SECTION II

The Existing System of Education

Before reviewing the education system in the State, the following background to educational development has to be borne in mind:

(i) The education system that existed in India, prior to independence, was established in the nineteenth century by the then ruling power, the British Government. It was designed on a foreign model and had little bearing on the social and economic development of the country and had little relevance to the environment. The main objective of this system was,

perhaps, to develop a class of people to assist the government administration particularly in the lower levels and was based on the theory that education would percolate from the classes to the masses. It was costly and suited only the upper and middle classes of the society. The foreign government was also not willing to disturb the existing social customs and traditions and the schools, therefore, were not accessible to the socially inferior in the stratified caste system. The educational system that developed, after attainment of independence, was on the basis and model that already existed. The system, which was principally for general education, was extended to the masses without any radical structural change.

(ii) The main features of this adopted model of traditional education is that it is a single point entry system in Class 1 at the age of about 6 years, with promotions to higher classes sequentially every year based on examinations, full time instruction by professional teachers extending to 5 or 6 hours a day, confined to school rooms and with three stages—Primary, Middle and High School. The teaching is book oriented and bound by prescribed curriculum.

(iii) The Constitution of India in Article 45 provides for free and compulsory education for all children up to 14 years of age. This provision was implemented by state legislation and free education has been introduced at the school level and up to the Pre-University at the college level including the pre-technical without emphasis on the compulsory aspect. This concept of universal free education implies a binding responsibility for the State to provide facilities of school building, equipments and the appointment of qualified teachers, with an administrative machinery dispersed in the geographical layout of the State, to the extent required in relation to the population of the school-age children, irrespective of the actual demand from the society or its response.

(iv) The concept that education is a pre-requisite rather than a concomitant to economic growth was acknowledged and accepted. But diversification for creating manpower for economic growth and development in school courses do not seem to have been provided on any planned basis. Further the prevailing economic activities of agriculture and allied occupations in rural areas, which necessitates the employment of children in small and marginal farms do not appear to have been taken into consideration to plan the duration and timing of the school course.

(v) The explosion of knowledge or information revolution, the most important single factor forcing change in education in modern days, had not been fully realised and recognised. The need for planning the education system to suit the technological and scientific advancement was not followed initially to the extent required. Hence there was little change in the content of education and methods of teaching.

The Tamil Nadu Government however responded fully to the needs of school education, embodied in the statutory provision, and arranged to provide in increasing numbers schools and equipments and appointed teachers with an aim to maintain a certain teacher-pupil ratio. The position showing the number of institutions, pupils and teachers in various types of schools for general education is given in Table 6, as on 1-8-1974.

There were 26,797 Primary Schools (classes I to V) in the State as on 1-8-1974 with a student population of 38,51,268 and 1,10,517 teachers. The Middle Schools (Classes I to VIII or VI to VIII), including Anglo-Indian Primary Schools, were 5768 in number with 22,62,792 students and 68,249 teachers.

The High Schools (classes I to XI or VIII to XI or IX to XI) were 2882; students totalling 16,54,523 and teachers 69,454. The table reveals a variety of schools—Indian High Schools, Anglo-Indian High Schools, Central Schools, Matriculation Schools, Schools affiliated to the Central Board of Secondary Education, Indian School Certificate Schools, Oriental Schools etc. There are also some educational institutions for the physically handicapped like the deaf and dumb and blind, Reformatory Schools etc. In all the Schools, Class XI is the School leaving stage, except in Secondary Schools where class XI is equivalent to the college Pre-university class. It is seen that the Primary Schools have co-educational classes while there are some schools separately for girls in both Middle and High Schools. The student population figures are for the three types of schools—Primary, Middle and High Schools. So they do not reveal the actual number of students for the three stages as some of the Middle and High Schools house the Primary classes as well. The number of students for the three stages in the state as on 1-8-1974 are as follows:

Primary Schools	..	55,60,415
Middle Schools	..	14,56,003
High Schools	..	7,52,165
Total	..	77,68,583

TABLE 6

Statement showing the Number of Institutions, Pupils and Teachers in various types of Educational Institutions in Tamil Nadu as on 1-8-1974.

Type of Schools	No. of Institutions	No. of Pupils			No. of Teachers		
		Boys	Girls	All persons	Men	Women	All persons
Indian High Schools							
High Schools:							
Boys	2324	10,34,606	2,37,603	12 72 209	46,456	8,512	54,968
Girls	447	1,022	3 04,723	3 05,745	82	11,104	11,186
Anglo-Indian High Schools :							
Boys:	20	11,461	2,635	14,096	176	271	447
Girls:	20	1,965	11,880	13.845	13	464	477
Central Schools:	10	4,370	2,944	7,314	121	158	279
Matriculation Schools:	24	9,527	12 656	22,183	121	817	938
Schools affiliated to Central Board of Secondary Education:	28	11,541	4,794	16,335	325	654	979
Indian School Certificate:	9	1,799	997	2,796	56	124	180
TOTAL	2,882	10,76,291	5,78,232	16,54,523	47,350	32,104	69,454

Middle Schools:							
Boys	37	9,544	6 6)8	16,152	330	284	614
Girls	6	169	2,603	2,772	—	84	84
Higher Elementary :	5,721	13 01,354	9,41,320	22,42,674	36,706	30,807	67,513
Anglo-Indian-Primary :	4	735	459	1,194	1	37	38
TOTAL	5,768	13,11,802	9,50,990	22,62,792	37,037	31,212	68,249
Primary Schools:	26,797	21,79,101	16,72,167	38,51,268	69,692	40,825	1,10,517
GRAND TOTAL FOR GENERAL EDUCATION	29,447	45,67,194	32,01,389	77,68,583	1,54,079	94,141	2,48,220
Pre-Primary School: Girls:	35	2 188	2,378	4,566	—	136	136
Pre-Basic Section:	20	582	577	1,159	2	11	13
TOTAL	55	2,770	2,955	5,725	2	147	149

(Table 6 Contd.)

Type of Schools	No. of Institutions	No. of Pupils			Number of Teachers		
		Boys	Girls	All persons	Men	Women	All persons
Other Education:							
Oriental High School	15	1,932	766	2,698	138	26	164
Oriental Middle School	1	7	—	7	2	—	2
TOTAL	16	1,939	766	2,705	140	26	166
School for the Handicapped							
Blind	9	764	331	1,095	54	19	73
Blind and Deaf	2	413	430	843	3	68	71
Orthopaedic	2	15	11	26	1	1	2
Deaf and Dumb	10	1,016	564	1,580	86	77	163
Leper	4	182	51	283	8	2	10
TOTAL	27	2,390	1,387	3,777	152	167	319

(Table 6 Contd.)

Type of Schools	No. of Institutions	No. of Pupils			Number of Teachers		
		Boys	Girls	All persons	Men	Women	All persons
Training School :							
Men	55	1,553	2	1,555	279	5	284
Women	56	—	1,731	1,731	3	262	265
TOTAL	111	1,553	1,733	3,286	282	267	549
Reformatory and Jail	20	3,654	1,033	4,687	107	89	196
Music	3	11	104	115	16	18	34
Adult	11	243	52	295	8	—	8
Craft Instructor	1	14	320	334	1	11	12
TOTAL	35	3,922	1,509	5,431	132	118	250

TABLE 7

Institutions in the State as on 1-8-1974. Management Wise

Type of Institution	Government A wing	Government B wing	Municipal	Panchayat	Aided Mission	Aided Non-mission	Unaided	Total
High Schools	344	1,472	120	Nil	323	548	65	2,882
Middle Schools	241	1	382	3,152	785	1,205	2	5,768
Primary Schools	1,344	Nil	1,049	19,282	2,137	2,979	6	26,797
Total	1,929	1,473	1,561	22,434	3,245	4,732	73	354,47

Source : Unpublished data from D.P.I. Madras

The Panchayat Unions are responsible for running the largest number of Primary and Middle Schools, 19,282 and 3,152 respectively. But they do not have any High Schools under their management. Although the capacity of each school would vary according to accomodation provided, it is interesting to note that the Panchayat managed Primary Schools have an average of 143·7 pupils while the average strength of Middle Schools is 392. The capacities of the Anglo Indian and Central schools are high. 40 Anglo Indian Schools have 27,941 students and the 10 Central schools have 7,314 pupils. Similarly the strengths of the Matriculation Indian and Secondary Schools are also high. Although the Panchayat Unions which are rural based have the largest number of Primary schools under their management, Municipalities, the Government, Religious Missions and other private organisations also run Primary Schools. Of the total of 55,60,415 students in Primary Classes, 38,51,268 are in Primary Schools as seen in Table 6, another 16,20,932

are in Higher Elementary Schools, making a total of 54,72,200 which leaves only 88,215 students in primary classes of the High Schools.

The rapid growth of primary education can be seen from the increase of schools and enrolment of students given in Tables 8 and 9.

During the period from 1966 to 1974, Primary Schools increased by 2156 units from 24,641 to 26,797 and High Schools by 658 from 2224 to 2882. There has however, been a slight decrease in the number of Middle Schools. With the impetus given to education by the establishment of the increasing number of schools, there was also expansion in the enrolment of pupils at different levels. Table 9 gives in absolute numbers and per centage details in enrolment in the three stages of school education, Primary, Middle and High School, for the period from 1956—1974. In total numbers the enrolment in classes I to V increased from 45·11 to 54·38 lakhs during 1966 to 1974. The increase in enrolment was at a greater pace during 1956—1966 as the increase was from 26·10 to 45·11 lakhs and in percentage from 56·82 to 88·08—being percentage of enrolment to total in the age group. Corresponding to the increase in schools and enrolment of students, there has naturally been an enhancement in the number of teachers employed from 1,96,604 to 2,48,220-being total numbers for schools for general education. The major trends seen in the progress of education are:

The State has provided for an increasing number ot schools and appointed teachers and enrolment increased from year to year with a school for every 300 of the population. There has always been a greater number of boys enrolled than girls in all the three stages and the total number and percentage of students that went on to the Middle School from the Primary and to the High School from the Middle have always been small throughout

TABLE 8

Comparative Statement of Schools For General Education from 1966-1974

Types of institution	31-3-66	31-3-67	31-3-68	31-3-'69	31-3-70	31-3-71	31-3-72	1-8-73	1-8-74
Primary Schools	24,641	25,091	25,366	25,694	25,855	26,074	26,367	26,726	26,797
Middle Schools	6,065	6,066	6 063	6,018	5,968	5,928	5,840	5,773	5,768
Central and Matriculation Schools and High Schools:									
Indian and Anglo-Indian	2,224	2,372	2,449	2,513	2,580	2,637	2,699	2,823	2,882

TABLE 9

Actual and Percentage Enrolment In different Age Groups (in '000)

Year	AGE GROUP 6—11 (I To V)			
	Boys	Girls	Total	Percentage to total in age group
1956-57	1,651	959	2,610	56·82
1957–58	1,722	1,013	2,735	58·72
1958-59	1,863	1,119	2,982	63·14
1959-60	1,950	1,186	3,136	65·49
1960-61	2,053	1,280	3,333	70·25
1961–62	2 249	1,468	3 717	75·52
1962–63	2,391	1,609	4 000	80·52
1963-64	2 517	1,741	4,258	84·81
1964–65	2,586	1,830	4,416	87·82
1965–66	2 637	1,874	4,511	88·08
1966-67	2,716	1,919	4,635	88·93
1967–68	2,821	2,073	4,894	92·80
1968–69	2,822	2,096	4,918	92·15
1969–70	2 862	2,140	5,002	92·60
1970–71	2 924	2,221	5,145	94·13
1971–72	2,964	2,269	5,233	94·50
1972–73	3 009	2,317	5 326	95·20
1973–74	3,064	2,374	5,438	—

Source: Compiled from "Tamil Nadu—An Economic Appraisal 1971 and 1973.

Table 9 (Contd.) :

AGE GROUP 11—14 (VI To VIII)				AGE GROUP 14–17 (IX to XI)			
Boys	Girls	Total	Percentage to total in age group	Boys	Girls	Total	Percentage of total in age group
343	135	478	23.70	159	45	204	12.22
369	149	511	25.08	170	50	220	13.13
395	170	565	27.46	179	59	238	13.97
431	186	617	29.66	185	61	246	14.34
481	210	691	32.59	201	67	268	15.31
528	234	762	35.44	216	77	293	16.53
577	262	839	38.66	252	91	343	19.12
648	288	936	42.61	292	111	403	22.19
655	317	972	43.73	357	143	500	27.25
721	345	1,066	47.31	386	165	551	29.65
752	381	1,133	49.70	427	181	608	32.30
788	407	1,195	51.87	435	191	626	32.83
800	428	1,228	52.57	430	207	637	33.05
844	455	1,299	54.90	455	214	669	34.30
851	468	1,319	55.10	473	224	697	35.30
868	478	1,346	55.50	483	231	714	35.70
888	494	1,382	56.40	489	236	725	35.80
910	509	1,419	—	497	242	739	—

the years, which shows a large number of students discontinuing studies. The gap between the Primary to Middle School is greater in number than Middle to High Schools. The analysis of figures of increase in schools (not included here) reveals that the largest increase, during the period, is in Panchayat managed Primary Schools which have shown an increase of 1658 schools.

The disposition of pupils and the pattern of enrolment in the five classes of the Primary School, as on 1-8-1974, by districts is given in Table 10 in absolute numbers. The major trends, in the State figures, are evident from these statistics. The number of students decreases sequentially from classes I to V and the enrolment of girls is on a much lower scale than boys. A single year's figures for the classes do not picture the actual passage of a cohort of pupils from one class to the next higher one because the subsequent four years' figures should be taken to complete the picture. But these figures denote the trend in enrolment. The fall in the number of students from class to class in sequence for 4 years is given in a later chapter. Table 11 gives a comparative statement of the number of Primary Schools enrolment, teachers and total population. The capacities of schools vary very much from district to district. 339 schools in the Madras city and 365 schools in Kanyakumari district house 1·47 and 1·29 lakhs students, while in Tiruchirapalli district 2992 schools house a proportionately lower figure of 2,69 lakhs pupils. 6 to 10 per cent of the total population are children of the school going age registered in the Primary schools in the districts. There is not much variation in the Teacher—Pupil ratio in the districts—the average ranging from 30 to 40 students per teacher.

The duration, timing and pattern of promotions which are followed in schools are uniform. In each class the duration of studies is for an year, the classes are a sequential series starting with enrolment in Class I. The academic year of the school

course of studies is usually from June to May of the ensuing year (except for Anglo-Indian Schools where the academic year is the Calendar year January to December). Each year consists of 220 working days for Primary and 200 for Secondary schools for 5 to 6 hours a day covering the period of time between 9-30 a.m. to 5-00 p.m. The usual pattern in all schools is a 3 term session, with examinations at the end of each term and spells of holidays. The third term test is counted as the promotion examination and a student who passes this examination is generally entitled to go to the next higher class, whatever his performance in the previous examinations or class work. A percentage is fixed as minimum for marks required for passing an examination. This pattern is followed both in the urban and rural schools in the State

In order to enhance the qualitative aspects of education, the Tamil Nadu Government has taken several steps. The teacher—pupil ratio was established at 1:20 for single teacher schools, 1:30 for two teacher schools, 1:55 for the rest as in 1973 although financial reasons for the scheme could not be implemented fully. As in 1974, the teacher-pupil ratio in Primary Schools was 1:37. Science teaching and equipment grants of Rs. 300/- each and library grant of Rs. 60/- each were sanctioned to 8,400 and 21,000 Elementary Schools respectively. There have been several revisions of the school curriculum—the latest being in 1972 when an integrated I—VII years syllabus was framed. There are also a large number of training institutions for teachers n the State. Further during the last two decade , there has been a spate of inservice training courses, reorientation courses, refresher courses etc. for the teachers conducted by the Universities and Education Department . Tamil Nadu has Teacher Training Colleges in every district to look after High Schools and one Training School in each Taluk to help the Elementary School Teachers. A State Institute of Education was established in 1965, with the definite purpose of functioning as an

TABLE 10

Standardwise Strength of Pupils for Primary Schools as on 1-8-1974

	Class I		Class II		Class III		Class IV		Class V	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Madras ..	18,693	18,472	16,516	16,337	14,804	14,292	13,048	12,488	12,112	10,572
Chingleput ..	38,158	31,749	34,351	28,081	30,184	22,439	25,704	18,128	21, 119	13,291
South Arcot ..	51,140	38,769	49,209	35,260	41,163	28,230	31,742	21,689	27, 354	15 522
Thanjavur ..	46,752	41,217	43,582	37,532	39 616	32,802	35,261	27,353	29,539	20,781
Madurai ..	51,687	42,196	46,775	36,925	41,663	31,541	35 664	24,593	29 364	18,771
Ramanathapuram ..	42,383	34,476	38 373	31,045	35,137	25,783	29 929	22,000	26 327	18,042
Tirunelveli ..	42,584	35,430	37,830	32,776	34,570	29,392	30,873	24,712	26 973	21,253
Kanyakumari ..	15 657	14,349	14,425	12,237	14,450	12,504	12 391	11,274	11,117	10,138
North Arcot ..	49,967	46,419	47,227	36,851	42 203	32,070	36,983	25,740	30,788	19,666
Salem ..	40,255	30,703	38,693	28,213	32,564	23 040	27,163	18,235	22,225	12,900
Dharmapuri ..	29,943	23 337	23 709	17,016	20,064	13,149	16 221	9 321	12,143	6,662
Tiruchirapalli ..	55,108	42,585	48 923	36,766	24,910	30,712	37,155	24,134	31,482	19,573
Coimbatore ..	59 668	50,115	53 393	43 302	44,717	34,295	38,399	28,223	31,024	21,224
Nilgiris ..	7,052	6 035	6 312	5,509	5,727	4,755	4,964	3 955	4,487	3,296
Total ..	5,49,057	4,55,852	4,99,318	3 97,886	4,39 172	3 34,999	3 75,500	2,71,845	3 16 054	2,11,591

TABLE 11

Comparative Statement of Primary Schools Enrolment, Teachers and Total Population in Schools as on 1-8-1974

District	No. of Primary schools	Enrolment lakhs	No. of teachers	Total population 1971 lakhs
Madras ..	339	1·47	3,668	24·69
Chingleput ..	1 930	2·63	7 382	29·08
South Arcot ..	2 520	3·40	9 388	36·18
Thanjavur ..	2,396	3·54	9,688	38·41
Madurai ..	2,381	3·59	10,479	39·38
Ramanathapuram ..	2 518	3·04	8 729	28·60
Tirunelveli ..	2 411	3·16	10,190	32·00
Kanyakumari ..	365	1·29	3 630	12·22
North Arcot ..	2,690	3·68	11,171	37·56
Salem ..	1,751	2·74	8,153	29·93
Dharmapuri ..	1,513	1·72	4,537	16·73
Tiruchirapalli ..	2 992	2 69	10 900	38·49
Coimbatore ..	2,640	4·04	10,111	43·73
Nilgiris ..	351	0·52	1,582	4·94
Total ..	26,797	—	1,10,517	411.99

agency for qualitative improvement of Elementary Education, Teacher Training Schools and the Inspectorate of the Education Department. Its programme included inservice training, publication and research. The Institute is now functioning as the State Council of Education Research and Training with a wider range of activities. Tamil Nadu was one of the earliest States to accept the idea of Audio-Visual aids to enrich class room instruction. The Education Department has had an Audio-Visual Education Officer from 1949. A good film library was started in the Department in 1950 and audio-visual training was introduced in all Training Colleges.

The Tamil Nadu Government has made some special efforts for the education of scheduled castes and tribes children. Special schools and hostels have been provided for the scheduled caste and tribe pupils. There were 833 Government schools of which 745 are Primary for scheduled castes and 73 schools (of which 64 are Primary) for scheduled tribe pupils in the State as in 1971. There were also 488 hostels for scheduled caste and 14 hostels for scheduled tribe students. All the pupils in the Government schools for scheduled castes and tribes are provided with free books and slates and two sets of dresses every year.

It will be seen from the data in Table 11-A that the largest number of schools for scheduled tribes are in Nilgiris and Coimbatore districts. But the largest populations of scheduled tribes are actually in Salem, Dharmapuri and North Arcot districts. Special measures to have more schools in these districts are necessary. The largest number of schools for scheduled castes are in South Arcot, Thanjavur and Chingleput. The distribution of schools for castes are fairly in proportion to the population distribution.

Further, the State introduced some ameliorative measures and provided certain incentives, particularly with a view to

TABLE 11-A

Distribution of Primary Government Schools as in 1971

Sl. No.	Districts	For Scheduled Tribes		For Scheduled Castes	
		Schools	Strength	Schools	Strength
1.	Madras ..	—	—	4	3,960
2.	Chingleput ..	—	—	100	15,869
3.	Coimbatore ..	18	823	14	1,863
4.	Dharmapuri ..	—	—	3	339
5.	Kanyakumari ..	1	60	—	—
6.	Madurai ..	1	40	11	1,194
7.	Nilgiris ..	20	1,110	3	209
8.	North Arcot ..	2	100	151	18,706
9.	Ramanathapuram ..	1	20	13	1,529
10.	Salem ..	9	536	7	850
11.	South Arcot ..	2	275	168	16,219
12.	Thanjavur ..	—	—	146	14,214
13.	Tiruchirapalli ..	9	330	108	13,014
14.	Tirunelveli ..	1	66	17	1,706
	State ..	64	3,410	745	89,172

helping the disadvantaged students. Tamil Nadu has been a pioneer in the Free Mid-day Meals Scheme for school children. The scheme which developed originally as a charity movement during 1956, became a regular feature of the Education Department School Programme in 1957. As against 8·8 lakhs of students

fed under the Mid-day Meal Scheme in 1956-57 school year, 18 lakh students in standards I to VIII were fed in 1971-72, with an expenditure of Rs. 196/- lakhs to Government. One-third of the pupils in the State, who come from the poor sectors of the population are benefited by the scheme. Further, supplies of free books and slates were made to the beneficiaries of the Midday Meal Scheme in Classes I to III. The movement for the Midday Meals Scheme which originated as a voluntary community movement in 1956 broadened and assumed the status of a comprehensive programme "School Improvement Projects". This movement of community support for school improvement developed over the years from 1958-74. By 1-8-74, 518 school development conferences had been held in the State covering a total of 69,635 schools and a total collection in cash and kind of Rs. 13·05 crores. Harnessing community efforts for development of education has led to the formation of the Parent Teacher Associations. As in 1973-74, there were 10,881 branch associations of which 9,074 were located in Primary Schools and 1,807 in High Schools. The Association has a quarterly magazine "Seithi" (News) in Tamil and also publishes pamphlets on teachers' duties, parents' duties etc.

Thus the Tamil Nadu Government has been able to establish on a massive quantitative scale educational facilities which could absorb upto 100 per cent of the student population in its institutions at the Primary level. It has also provided certain amenities and ameliorative measures for the disadvantaged groups in the society and for the qualitative progress of education. These form a favourable setting for the development of a large-scale educational reform which could considerably alleviate if not wipe off the present disabilities the system is subject to. Hence a more systematic analysis of the disadvantages, the major symptom of which is the massive drop-out rates and consequent wastage, is a natural pre-requisite.

CHAPTER 3

WASTAGE IN EDUCATION

Section I

Nature of the problem and its manifestations

The term 'wastage' is of comparatively recent origin as applied to education and is perhaps, from the dictionary of the economists. The immediate reaction the usage evokes is to ask what is the nature of the problem, what is being wasted, how does it arise, and what are the definable forms and manifestations of wastage. Probably the use of the term arose from comparing education to a manufacturing industry with capital investment in plants, recurring labour and maintenance expenditure and processing raw materials into finished products, organised by an entrepreneur. Education is from the point of view of a country's or State's resources and expenditure a large business in which the State is the entrepreneur, with capital investments in schools and equipments, with recurring expenditures in respect of payments to teachers and maintenance of an administrative machinery for the manufacture of educated persons. Therefore, when schools and equipments or the labour of teachers are not fully utilised or when the manufactured products namely the educated persons fall short of the standard or when the standard set up is faulty in relation to the needs of the State or the aspirations and requirements of the society, then there is wastage. The forms in which wastage in education exists have been defined in the UNESCO publication " Wastage in education a world

problem" (Unesco IBE, 1971) as "Educational wastage can be said to exist in the following forms:

In failure of a system to provide universal education.

In failure to recruit children into the system.

In failure to hold children within the system.

In failure of the system to set appropriate objectives.

In inefficiency in the achievement of objectives."

In Tamil Nadu, the first type of wastage does not seem to arise as there is, on the average, a school for every 300 persons of the population. The recruitment or enrolment of students in the primary school has been progressive, although for the middle and high schools it has not reached a high percentage. So the defective aspects of the school education system are mainly in the failure to hold the children within the system, the failure to set up appropriate objectives and achievement of the objectives. The visible symptoms or manifestations of these failures are the drop-outs or students leaving school, repetitions or stagnation, the large number of educated unemployed and a staggering number of illiterates. The failure to retain children in school means that school facilities that have already been created and which should be utilised to create higher levels of literacy are not being utilised fully. In other words, while the State is unable to provide educational facilities to the extent desirable, due to paucity of resources, there is wastage in resources already invested, because investment carries with it the implication that resources available and invested must be utilised to the maximum. The failure to define the objectives and achieve the objectives means that the education system does not subscribe to political and social changes and economic development. The concept of wastage, therefore, can also be taken to include the fundamental loss of human resources which cannot be computed accurately.

This section is confined to the analysis of the two major components of wastage in education namely: (1) wastage due to drop-outs and (2) wastage due to stagnation or repetition. The first of these is due to pupils admitted to the first grade of an educational cycle leaving the institution without completing the cycle. The second is due to pupils repeating the same class due to failure in examination, irregular attendance, illness etc. The major disquieting effect of drop-outs is that pupils leaving the primary school without completing the course ultimately lapse into illiteracy and swell the ranks of illiterates. Stagnation results in the limitation of enrolment and intake of students into the classes to the extent of the repeaters present.

One of the most important problems of education, particularly in rural primary education in Tamil Nadu, is that of wastage, arising out of drop-outs and stagnation. Wastage has its financial implications and is socially malignant because the drop-out ultimately lapses into illiteracy and swells the ranks of illiterates. The cost of educational wastage is incidental and additional to the prime cost or basic cost necessary to maintain an educational system and is, therefore, infructuous and should be avoided. Hence it is clear that although the problem of wastage is complex, statistical analysis and its measurement in demographic and monetary terms will be of immense help to educational planners and policy makers to adjust the existing pattern of educational system in the State and define steps for the optimum use of existing resources and evolve a basis for future investments. Such an empirical analysis and calculation of wastage in demographic and monetary terms would require reliable data for drop-outs and repetition each year, for the entire State, for the various levels of education system, class by class, for a few years, and also the financial invesments. So the question arises how such a study can be effected.

The problem has been studied on a world basis. In 1969 the UNESCO Office of Statistics issued a questionnaire to all member states for information on school enrolments and repetitions by grade and sex for the first and second levels for 1960-61 to 1967-68 as a basis for analysis of wastage. The International Bureau of Education in a separate enquiry sought information on policies, problems, causes, remedies etc. On the basis of these two surveys, although incomplete, two working papers were submitted to the International Conference on Education, Geneva, 1-9 July, 1970 and a manual issued after the Conference indicates three approaches to the study on wastage.

1. The true cohort method

In order to measure precisely the flow patterns of the school career of a cohort of pupils, an individualised data system, where each student has his own number, is necessary and the career of each has to be followed throughout the course, as is done in Sweden.

2. The apparent cohort method

By comparing the enrolment in grade I in a particular year to the enrolments in successive grades in successive years, the decrease in each case can be obtained which corresponds to wastage. This is the most commonly used method. It produces approximate estimates and no differentiation between drop-outs and stagnation would be available.

3. The reconstructed cohort method

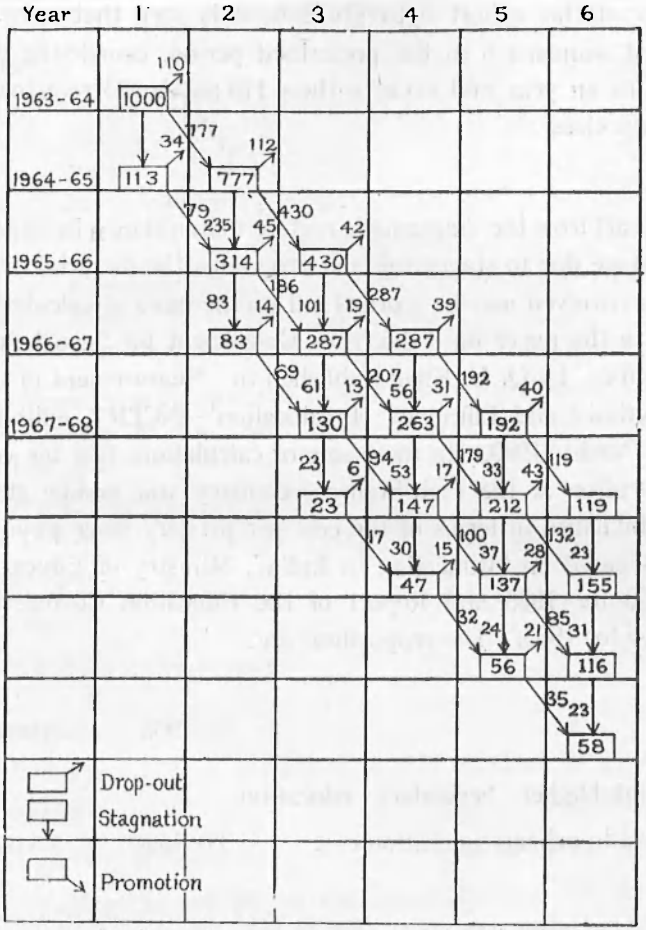
When data regarding enrolment and repetition by grade in each year is known, the rates of promotion, repetition and drop-out can be obtained.

The calculations made for Colombia as an illustration are shown on page 42 :

Year and Category	Total all Grades first level	Grades 1	2	3	4	5
(1967)						
Total enrolment	.. 2586288	1019967	628069	408427	298992	230833
of which Repeaters	.. 482400	246532	125036	58811	32592	19429
(1968)						
Total enrolment	.. 2733432	1056066	659476	449154	317862	250874
of which Repeaters	.. 484884	244402	118862	64053	35112	22456

From the above data the new enrolment in grade 1 can be computed. Out of the 1019967 in grade 1, 246532 are repeaters. The new entrants are 773435 (1019967-246532). The number of pupils promoted to grade 2 in the subsequent year is the total number in grade 2 less the repeaters i. e. 659476—118862 = 540614. Hence the drop-outs can be computed as 234951 because out of 1019967 in grade I, 540614 were promoted which leaves a balance of 479353 pupils and of these 244402 are repeaters. (1019967-540614-244402). If therefore the total number of pupils can be equated to 100, then the corresponding figures for promotion, repetition and drop-out will be 54, 23 and 23. It must be pointed out here that calculations of wastage assumes a 100 per cent utilisation of the resources provided and also that all the pupils in a grade reach the standard in the prescribed period for promotion to the next grade.

The phenomenon of wastage is common to all grades and the stages of school education, primary, middle and high school courses. The magnitude of the problem in actual numbers can be illustrated diagramatically as shown on page 43.



Source: Studies and surveys in co-operative Education wastage in Education–A World problem-UNESCO, IBE, 1971

The diagram above shows the flow of a cohort of 1000 Algerian boys and girls (urban and rural combined) at the first level of education based on data for 1963-64 to 1967-68.

The above diagram of a cohort of pupils shows that out of 1000 students, 110 dropped out, 113 remained in the same class

and 777 were promoted from grade 1 to grade 2. Tracing the history of this cohort upto grade 6, it is seen that only 119 reached standard 6 in the prescribed period, completing each grade in an year and even in these 119 pupils, 23 remained in the same class.

Apart from the diagramatic representation shown in numbers of wastage due to stagnation and drop-outs, the financial implications involved may be worked out on the basis of calculations given in the paper on "Efficiency Co-efficient for School Stage Education" by Q. U. Khan published in 'Measurement of Cost Productivity and Efficiency of Education'—NCERT, edited by H. N. Pandit, 1969. In these sets of calculations first the costs of education at the high/higher secondary and middle stages are established in terms of the cost per primary stage pupil, on figures based on 'Education in India', Ministry of Education, 1955-56 for 1955 and Report of the Education Commission, 1964-66 for 1965. The proportions are:

	1955	1965
(a) High/Higher Secondary education cost to primary education cost	3.0 times	3.5 times
(b) Middle stage education cost to primary education cost.	2.0 times	1.5 times

Then the proportions by which the costs per graduated pupil increase due to drop-outs and stagnation in the three stages of the General Education System (GES) are as follows:

Allowance for Drop-outs ;

Serial No.	Stage	1955	1965
1.	Primary ..	0.72	0.47
2.	Middle ..	0.18	0.12
3.	High/Higher Secondary ..	0.21	0.15

Allowance for Stagnation ;

1.	Primary ..	0.53	0.46
2.	Middle ..	0.17	0.13
3.	High/Higher Secondary ..	0.25	0.25

From these figures, the cost of education added up for the three stages of the GSE, including the cost of educational wastage represented by drop-outs and stagnation assumes the following shapes.

For 1955:

Primary = $1+0{\cdot}72+0{\cdot}53=2{\cdot}25$

Middle = $1+0{\cdot}18+0{\cdot}17=1{\cdot}35$

High/Higher Secondary = $1+0{\cdot}21+0{\cdot}25=1{\cdot}46$

For 1965:

Primary = $1+0{\cdot}47+0{\cdot}46=1{\cdot}93$

Middle = $1+0{\cdot}12+0{\cdot}13=1{\cdot}25$

High/Higher Secondary = $1+0{\cdot}15+0{\cdot}25=1{\cdot}40$

Taking the cost per primary stage pupil as Cp, the cost of the entire GSE system, assuming the wastage to be Zero, can be expressed as;

---

1 Calculations for drop-outs were made separately for the three stages of the GSE by relating enrolment of the preceding class of each stage to the enrolment in the final class of the respective stage with appropriate timelag.

2 Allowance for stagnation is based on the stagnation indices given in 'Report of the Education Commission 1964-66, wherein the indices are specified for boys and girls separately for classes I to VIII obtained by a study ot 29 districts out of the 312 districts and estimating the indices for classes IX and XI. Proportional weights of enrolment in individual cases were a lied to the stagnation indices.

For 1955 :5 Cp+3 (2 Cp)+3 (3 Cp) =20 Cp and I(*a*)
For 1965: 5 Cp+3 (1·5 Cp)+3 (3·5 Cp) =20 Cp I(*b*)

Introducing the wastage factor (drop-outs and stagnation) the extent to which the cost of education gets inflated in the two years can be formulated as:

1955: 2·25×5Cp+1·35×6Cp+1·46×9Cp =32.49Cp II(*c*)

1965: 1·93×5Cp+1·25×4.5Cp+1·40×10·5Cp =29·97Cp II(*d*)

The effect of educational wastage is arrived at by substracting the first set of figures (I) from the second set of figures (II) i.e. (*a*)—(*c*) and (*b*)—(*d*). And it can be seen that the complete GSE system cost 62 per cent more in 1955 while it was only 50 per cent more in 1965.

For Tamil Nadu, statistical data separately for drop-outs and repetitions by standards are not available. But in the report of a study of wastage and stagnation, undertaken by the Research Bureau, Teacher's College, Madras, 1962, [1] the career of 1191 pupils in 51 elementary schools (5 urban and 46 rural) has been analysed to show the extent of stagnation and wastage beginning in 1956-57.

Sl. No.	Description	No. of Students
I.	Students who spent all the five years and were still in Class I.	1
	Students who left school after spending one year (170), two years (125), three years (30), four years (7) and five years. (I)	333
	Total number of students who did not proceed beyond Class I.	334
II.	Students who were in Class II after spending 5 years.	6
	Students who left in Class II after spending two years (105), 3 years (93), four years (28) and five years (5).	231
	Total Number of students who did not go beyond Class II.	237

1 Stagnation and Wastage in Primary Schools. Mr. M. Jayaraman, NCERT—1967.

III.	Students who were in Class III after spending 5 years in the classes at different levels.	48
	Students who left Class III after spending different periods in each class.	142
	Total Number of students who did not go beyond Class III.	190
IV.	Students who were in Class IV.	104
	Students who left Class IV after spending different periods in each Class.	71
	Students who did not proceed beyond Class IV.	175
V.	Students who were in Class V after spending different years in the classes.	128
	Students who left Class V after spending 5 years.	3
	Total Number of students who did not go beyond Class V.	131
VI.	Students who completed Class V in 5 years.	124
	Total Number of students investigated	1191

Out of the 1191 students whose case history was studied only 124 passed the final class, V standard, in the scheduled period. Further analysis of the data shows that the enrolment of girls and boys in urban areas was equal, while in the rural areas the enrolment was less for girls. The stagnation was heavy in standard I and considerably reduced in subsequent classes. It was also found that 70 per cent of the scheduled class and 67 per cent of the backward class pupils contributed to the total stagnation of all standards.

The progress of a cohort of children who joined standard I in 1957-58 has been drawn and shown in Table 1.14 Two of the State Planning Commission publication "Towards a Learning Society" and is reproduced below for the school stages.

TABLE 1.14 TWO:

Tabular Summary of Student Career 1957-68

Year		Standard	Number of Children enrolled in Lakhs
1957-58	..	I	8.74
1961-62	..	V	4.22
1964-65	..	VIII	2.54
1967-68	..	XI	1.66

It is seen that only less than 50 per cent of the pupils who joined class I reached class V. Detailed analysis of wastage in girls education is shown in Table 1.14 Three.

TABLE 1.14—THREE

Elementary Education (Girls): Wastage Standard I—V

Year		Strength of girls in Standard I	Year	Strength of girls in Standard V	Percentage	Wastage
1958-59	..	3,80,406	1962-63	1,60,860	42.28	57.72
1959-60	..	4,08,405	1963-64	1,76,157	43.13	56.87
1960-61	..	4,34,058	1964-65	2,01,205	46.35	53.65
1961-62	..	5,35,005	1965-66	2,21,304	41.36	58.64
1962-63	..	5,83 054	1966-67	2,32 096	39.80	60.20
1963-64	..	6,08,567	1967-68	2,43 858	40.13	59.87
1964-65	..	5,81,118	1968-69	2 66 279	45.10	54.90
1965-66	..	5,67,237	1969-70	2,71,242	48.24	51.76
1966-67	..	5,85 665	1970-71	2,83,939	48.55	51.45

Although the enrolment has been increasing yearly the wastage is still very high, which was highest in 1962-63. These calculations do not provide data separately for drop-outs and stagnation. Further, the tables do not picture the true flow of pupils from the cohort in class I to class V because the figures for class V will contain the repetitions of class II, III and IV who reached class V in 1961-62. However, the statistics give an indication of the extent of wastage. In Tables 12 and 13, the flow of pupils, class by class, from class I to V, for the years 1971 to 1974, and the total enrolments for the State for general education and separately for boys and girls are shown. In these tables separate figures for stagnation and drop-outs are not available. The enrolment figures in each class would also contain the stagnation in the class. It is seen from these tables that out of a total enrolment for the State of 13,82,345 pupils in class I in 1971, only 12,37,567 pupils reached class II in 1972, showing drop-outs to the extent of 1,44,778. But this figure cannot be accepted as accurate for drop-outs because the stagnation elements in class II in 1972 is not known. Of these drop-outs 72,838 were boys and 71,940 were girls, showing a very small margin of excess of boys over girls. In the subsequent years for classes II to III and III to IV, the total number of pupils discontinuing studies are 1,45,483 (69,408 boys and 76,074 girls) and 1,41,190 (67,615 boys and 73,575 girls). In both these stages the numbers of girls dropping out are greater than those of boys. In terms of percentages, percentages of drop-outs to total enrolments are 10.4, 11·7 and 12·9 for the years specified for classes I to II, II to III and III to IV. Tracing the drop-outs in the flow of students from class II to class V during the same period, the following results are obtained:

Class II to III 1971-72	..	12,10,915—10,61,018=1,49,897
Class III to IV 1972-73	..	10,61,018— 9,20,119=1,40,899
Class IV to -3 V 1974	..	9,20,119— 7,93,531=1,26,588

TABLE 12

Standardwise Strength of Pupils in Institutions for General Education

	I	II	III	IV	V
1-8-1971 ..	13,32,345	12,10,915	10,37,978	8,71,581	7,30,759
1-8-1972 ..	13,86,311	12,37,567	10 61,018	8,93,647	7,47,591
1-8-1973 ..	13,93,425	12,62,270	10 92,085	9,20,119	7,69,708
1-8-1974 ..	14,20,230	12,77,473	11,18,286	9,50,895	7,93,531
Drop-outs from 1-8-1971 to 1-8-1972 Class I to II			13,32,345—12,37,567=1,44,778		10.6 per cent
Drop-outs from 1-8-1972 to 1-8-1973 Class II to III			12,37,567—10,92,085=1,45,462		11.7 per cent
Drop-outs from 1-8-1973 to 1-8-1974 Class III to IV			10,92 085— 9,50,895=1,41,190		12.9 per cent

Source: Unpublished data from the Director of Public Instruction's Office.

TABLE 13

Standardwise Strength of Boys in Institutions of General Education

	I	II	III	IV	V
1-8-1971 ..	7,58,594	6,69,232	5 87,824	5 09,513	4,39,132
1-8-1972 ..	7,59,727	6 85.756	6,00,655	5,17,937	4,45 263
1-8-1973 ..	7,63 297	6,97,797	6,16 348	5,31,357	4,55 491
1-8-1974 ..	7,75,792	7,08,352	6,30,692	5,48,733	4,69,185

Drop-outs from 1-8-1971 to 1-8-1972 Class I to II	7,58,594—6,85,756=72,838	9.6 per cent
Drop-outs from 1-8-1972 to 1-8-1973 Class II to III	6,85,756—6,16,348=69,408	10.1 per cent
Drop-outs from 1-8-1973 to 1-8-1974 Class III to IV	6,16,348—5,48,733=67,615	10.9 per cent

TABLE 13 (contd.)

Standardwise Strength of Girls in Institutions of General Education

		I	II	III	IV	V
1-8-1971	..	6,23 751	5,41,683	4,50,154	3,62,068	2,91,627
1-8-1972	..	6,26,584	5,51,811	4,60 353	3 75,710	3,02,328
1-8-1973	..	6 30,128	5 64,473	4,75,737	3 88,762	3 14,217
1-8-1974	..	6,44,138	5,69,121	4,87,594	4,02,162	3,24,346

Drop-outs from 1-8-1971 to 1-8-1972 Class I to II	6,23,751—5,51,811=71,940	11.5 per cent
Drop-outs from 1-8-1972 to 1-8-1973 Class I to III	5,51,811—4,75,737=76,074	13.7 per cent
Drop-outs from 1-8-1973 to 1-8-1974 Class III to IV	4,75,737—4,02,162=73,575	11.2 per cent

These figures clearly reveal a few disturbing facts—firstly a drop-out of over one lakh students every year and over 5 lakhs in the primary course. Secondly calculating on the basis of the data given separately for girls and boys, it is seen that although the enrolment of boys is more than that of girls in all the five classes in all the years, the numbers of girls dropping out in passage from class II to III, III to IV and IV to V are greater than those of boys during these years. Thirdly the increase from year to year in enrolment over the years in class I is negligible compared to the drop-outs from which it has to be assumed that the pupils leaving school in the first year do not return to school. Fourthly it has also to be remembered in this connection that as shown in Table 9 the total enrolment percentages for classes I to V in 1971-72, 1972-73 and 1973-74 are 94·50, and 95·20 and 95·46 leaving percentages of 5·50, 4.80 and 4·54 of children of the age-groups 6 to 11 years not entering school at all.

Reviewing the flow of students from one class to another in a single year 1971-72 viz. class I to II, II to III, III to IV and IV to V, it is seen that large numbers of pupils drop-out totalling 5·6 lakhs for the year.

Year 1971–72	Enrolment	Strength in next class	Drop-out
Class I to II	13,82,345	12,37,567	1,44,778 (10·4 Per cent)
Clss II to III	12,10,915	10,61,018	1,49,897 (12·3 Per cent)
lass III to IV	10,37,978	8,93,647	1,44,331 (13·9 Per cent)
ass IV to V	8,71,851	7,47,591	1,24,260 (14·2 Per cent)
Total Drop-outs for an year			5,63,266

In order to further analyse the drop-outs in each district the enrolments for years 1971 to 1974, districtwise in absolute numbers is given in Appendix I for classes I to V. The per-centages of drop-outs in a cohort of children moving from class I

to class IV, in 1971-74, are noted in Table 14 i.e. of a cohort of pupils joining in class I in 1971, the percentage that leave school by 1974, as a percentage of the pupils of class I, separately for boys and girls. It is seen that Dharmapuri has the highest percentages of drop-outs for both boys (42·6) and girls (56.4) followed by Salem 37.5 and 44.0 respectively. The lowest drop-out percentage for boys is in Tirunelveli (17·7) and for girls, Kanyakumari (17.0). Curiously in Madras and Kanyakumari the drop-out percentage for boys is higher than that of girls viz. boys 33.9 and girls 32.0 in Madras and boys 18·5 and girls 17·0 in Kanyakumari. In all other districts the percentages of drop-outs of girls are higher than those of the boys.

The major facts that emerge from an analysis of drop-outs are: (1) In spite of an adequate school capacity, a high proportion of children leave school before completing the primary stage. (2) To be specific special attention has to be paid to the two districts, Dharmapuri and Salem and (3) The drop-out percentage is higher in the case of girls than that of boys. (4) Another consideration which arises is whether in view of the heavy drop-out percentage, planning of school facilities for the full compliment of school-going children, on a population basis for any age-group or level should continue as at present or whether it should be adjusted giving weightage to drop-outs and stagnation so as to avoid infructuous capital expenses, at least for a few years to come (5) The accommodation in the middle school stage may be reviewed to verify that if the drop-out percentage is considerably reduced whether the flow of students from the primary school could be absorbed in the middle school.

While drop-outs, enrolment and promotion are useful administrative categories of pupil movement in any school stage, they do not form the sole, critical and representative decision making events of the education system and they do not differen-

tiate the factors external to the education system which are, perhaps, more influential. However, a study of the causes of drop-outs and wastage would be an essential exercise to further understand the problems connected with this aspect of education as it is, at present, the biggest drawback facing the education system, which has to be remedied.

TABLE 14

Percentage of Drop-outs District-wise during Four Years from 1971–74 (Classes I to IV)

Sl. No.	Districts	As percentage to enrolment in Class I	
		Boys	Girls
1.	Madras ..	33·9	32·0
2.	Chingleput ..	28·8	39·6
3.	South Arcot ..	26·4	30·7
4.	Thanjavur ..	26·9	33·8
5.	Madurai ..	28·0	36·9
6.	Ramanathapuram ..	26·0	33·0
7.	Tirunelveli ..	17·7	21·1
8.	Kanyakumari ..	18·5	17·0
9.	North Arcot ..	26·2	35·4
10.	Salem ..	37·5	44·0
11.	Dharmapuri ..	42·6	56·4
12.	Tiruchirapalli ..	23·4	34·7
13.	Coimbatore ..	32·1	38·6
14.	Nilgiris ..	25·5	36·9

Source: Compiled from unpublished Statistics of Director of Public Instruction. (For enrolment in absolute figures see Appendix I).

Section II

Causes of Wastage

For the purpose of reviewing the causes of wastage in education and designing appropriate remedies, it is convenient to distinguish the factors exogenous to the education system and which are not under its control but which have influence on education from the factors inherent in the education system, although such a division between external and internal factors may be arbitrary. In other words first it has to be analysed how far the factors in a child's background—the home the economic status of his parents, their literacy and the kind of environment he lives in affect his chances of availing and benefiting from the education offered. Second, it has to be analysed how far the internal factors connected with the supply aspect of educaction under the direct influence of the educational authority affecting the quality of education determine the extent of participation and retention in rural primary education. These factors can be broadly grouped as the system of education offered, its content and objectives, timing of school teaching, accessibility to schools, expenses for education etc. The system of government which ultimately decides the policy and extent of education offered has also its bearing on the problem.

A review of the problem in countries of the world published as a series of articles in the Unesco Courier on " A Unesco World inquiry, school drop-outs and the social background of students " show some interesting features of this problem. It is stated that in 1967-68 nearly 70 per cent of children of primary school age were enrolled in schools throughout the world, with the percentage varying from 98 per cent in North America to 55 per cent in Asia and 40 per cent in Africa. A number of reasons have been advanced for the failure of a child at school. " Poverty may affect the child's chances for success in school. A child who is constantly hungry will have difficulty giving

his full attention to the lessons to be learned at school. A child whose parents cannot provide him with the clothing he needs may be physically uncomfortable as well as being embarrassed by being with class mates who are better clothed . . . A child who observes that the grownups around him are either without jobs or in poorly paid jobs is likely to develop limited ideas about his own chances for the future." A number of other reasons are also given. A child may be disadvantaged if he is a member of a minority group of a lower caste, if he lives in geographically isolated area, if a girl of some cultural group wherein only a minimal level of literacy is expected, if he has only limited opportunities to develop his mental abilities and language and due to a variety of school factors.

Research undertaken at the Agricultural Economics Research Centre at Delhi University for one year from May 1967 deals with the socio-economic factors and the school facilities which are expected to have some bearing on participation and retention of children in rural primary schools in India.* The study analyses the impact of various extenal factors like historically prevailing literacy rates, degree of urbanisation and the degree of industrialisation on the retention ratio in primary education in 14 States of the Indian Union. These three external factors, however, failed to show any clear relation to the degree of retention. But one factor which seemed to have some bearing on the extent of retention, which could be identified, was rural per capita income. As any highly reliable index of per capita rural income was not available, an approximate measure obtained by dividing the gross values of agricultural output (a time series average of five years) by the number of rural persons was used. In order to further examine how far income affects retention, more reliable data was obtained by a field

* *Primary Education in Rural India Participation and Wastage*—Tata McGraw Hill Publishing Co. Ltd., Delhi, 1971.

survey of 11 U.P. villages and 9 Punjab villages. The households in these villages were grouped into those with an annual income of less than Rs. 1,500 and those above Rs. 1,500/-. The reasons given by the households for their children not attending school were:

(a) Poverty did not permit the child to continue studies' particularly if there was scope for employment.

(b) Academic failures and stagnations and consequent withdrawals.

(c) Excessive involvement in household duties.

(d) Educating girls was not considered "proper" by many.

The first answer (a) was invariably given by the lower income group; the withdrawals as in (b) was also more in this group and answer, (c) was almost exclusively given by them. Answer (d) did not have any bias in terms of one income group or the other. Therefore the field survey data was compatible with the assumption that income level is a dominant factor in influencing the extent of retention. Another interesting feature revealed by this survey was that regarding the influence of caste system on school attendance. It was found that children attending school as a percentage of the total number in that caste group was higher among the non-harijans. But a further detailed examination revealed that at really low income levels poverty dominates everything else and that only at somewhat higher levels of income social factors like caste tend to exert their influence.

In the above study, in order to ascertain if any statistically significant association existed between the extent of retention and educational facilities represented by the following indices

chosen on an *a priori* basis, scatter diagrams were prepared with retention as one variable and each index as the other variable for the States.

(a) Educational expenditure per head.

(b) Primary School expenditure per head.

(c) Average annual cost per pupil in primary school.

(d) Students to teacher ratio in primary schools in rural areas only.

(e) Number of available schools per lakh of population.

(f) Number of schools with play-ground facilities, as a proportion of the total number of primary schools in rural areas.

(g) Percentage of rural population served with primary school facilities within a walking distance of one mile in rural areas only.

(h) Number of trained teachers as a proportion of the total number of primary school teachers in each State in rural areas.

But no statistical model seemed to emerge except for one case i.e. the number of teachers as a proportion of the total number of primary school teachers. It may, therefore, be said that the role of facilities in general is rather insignificant in explaining the extent of retention.

Report of the Education Commission 1964-66, states that as a result of a few studies it is found that 65 per cent of wastage is due to poverty. Further that while a child may willingly be sent to school between the ages of 6 and 9 years as at this stage he is more a nuisance at home, after the age of 9 or 10 years the child becomes an economic asset because he can work at home or earn something outside. This is particularly true of girls who

can help the mother at home. The other causes which are listed as educational factors and social causes which are responsible for the other 30 per cent wastage are: incomplete schools, which do not teach the full courses, prevalence of stagnation, dull character of most of the schools, absence of ancilliary services like school meals and school health schemes and the failure of the parent and child to realise the advantages of education.

There are not many studies on causes of wastage in education in relation to Tamil Nadu schools. In a study made as early as 1962, by the Research Bureau, Teachers College, Madras in which 40 teachers and 100 Deputy Inspectors of schools were given check lists to score causes of stagnation and drop-outs in primary schools in Tamil Nadu, the following causal factors have been listed.*

Item No	Causes of Stagnation	Percentage of teachers	Percentage of Deputy Inspector
28	Parents' apathy to education ..	87.5	78
15	Non-availability of reading and writing materials ..	82.5	73
14	Lack of facility to study at home ..	80	85
8	Irregular attendance of pupils ..	80	85
17	A teacher handling a large numbers of pupils ..	65	77

* *Stagnation and Wastage in Primary Schools.* M. Jayaraman—NCERT—1967.

Item No.	Causes of Wastage	Percentage of teachers	Percentage of Deputy Inspector
22	Parents engaging children in domestic affairs ..	92.5	84
24	Parents taking no interest in educating their children ..	82.5	71
33	Parents taking their children to assist in their occupation ..	75	84
3	Non-availability of reading and writing materials ..	75	64
26	A teacher handling an unweildly number of children ..	70	64
2	Lack of proper clothing ..	70	54

It would be seen from the above answers to the checklists, by persons who are directly concerned with the education process that most of the reasons given denote socio-economic reasons more than the inadequacy of educational facilities, for stagnation and drop-outs. In a later study, assigned in June 1970 by UNICEF to the Indian Institute of Public Opinion, to determine the character of the unemployment problem faced by young drop-outs from schools in Dharmapuri, Tamil Nadu and Ahmednagar, Maharashtra, some characteristics of rural school drop-outs and their socio-economic situation have been elaborated after survey. There interesting features are : (1) Nearly three fourths of the drop-outs in Dharmapuri belong to scheduled and backward castes (2) The Occupation of the parents/guardians of 52 per cent of the drop-outs in Dharmapuri is 'Cultivation'. The health factor does not seem to have decisively influenced the drop-outs as more than 90 per cent of them had not fallen ill for more than two weeks during five years prior to 1971.

Another factor of importance in the socio-economic milew in which the education system operates is the fact that in the rural economy of the State, agriculture is the predominant occupation and the whole family including the children, particularly in the poorer sections, is apt to be occupied in the sowing and harvesting operations, specially in paddy cultivation. But these economic activities are seasonal with peak levels at the sowing and harvesting seasons. The two principal crops are the Rabi and Kharif. The sowing season for Rabi crops are in the October/November months and harvesting in April, similarly for Kharif crops with sowing in May/June and harvesting in September/October. During these months April, May, June, September and October when the agricultural activities are at their peak, even children are called upon to help on the family farm or may even find employment in some light work. This seasonal employment possibility for children has its influence on education as the present education system enjoins school for the whole day, the year through.

One of the main causes for stagnation is the nature of the examination and promotion system in schools. Examination in essence means that on certain days, usually at the end of a term, the pupils must reproduce some items of knowledge taught, in answer to questions set. Students who obtain the minimum marks prescribed or above in the examination at the end of the year are promoted to the next higher standard. Others continue in the same class irrespective of the knowlege gained or skills acquired. Some sort of evaluation of the work of a student is admittedly necessary'. But whether a rigorous standard based on examinations alone in the primary school is necessary or not is the question.

In chapter 2 it has been shown that the syllabi for various subjects in Primary Schools throughout the state are common to all schools—there being some variations in the different types

of school, these are not designed to be relevant to fe prevailing conditions or economic activities of a locality. In otl.er words the child is burdened with lessons on objects which are not necessarily familiar to him or his parents in the environment they live in. Conseqently, the interest evoked in the lessons would be little which is likely to prove a deterrent for the continuance of studies. Of course, a child who comes to a primary school would not have developed discretion enough as to judge for himself as to the relevance of the syllabi. But all the same what is taught can motivate interest in studies for a child if related to the environment.

The single point entry in a school course is another deter rent to participation i.e. in order to complete any stage of education, primary, middle or high school. a child has to start at the bottom of the lowest level and has to obtain a pass in each of the succeeding classes to the higest clas's of the stage to enter the next higher stage. This would prevent a drop-out from returning to school as he will have to start where he left off. A system of multi-point entry would, however, probably create certain administrative problems as it would give room for a child to leave one school from a certain class and join a higher class after some time in another school.

The Tamil Nadu State Planning Commission, Task Force Report, " Towards a Learning Society " in assessing the causal actors for wastage has pointed out that the most serious wastage of 51.2 per cent of those enrolled takes place in standards I, II, III and IV. " Secondly there seem to be a curious relation between the 51.2 per cent wastage and 40 per cent of people in the rural areas and 60 per cent of people in the urban areas living below the poverty line in the State as recorded in the Draft Perspective Plan frame ". Further " The education wastage of the system is related to and confounded by the unemployment and unemployability of its graduates ". Another reason advanced in this report for stagnation is the nature of the curriculum and the syllabus which does not correspond to the interests and aptitudes of the individual student.

There are, thus, two sets of factors primarily responsible for wastage in education, namely the socio-economic and psychological aspect of the children and parents and secondly the defects of the education system. No accepted formula exists for meeting the external and internal constraints that contribute to wastage in education. The Indian Institute of Public Opinion New Delhi, in its Survey report, "A Wasted Asset" (referred to earlier) states "Social customs, particularly in respect of girls and the low income returns from agriculture and rural artisan occupations decree both a lack of interest in retention of children in school and an incapacity to provide incentives to leave the traditional grooves of a stagnanatrural society. It is clear that the outlook of drop-outs cannot be altered unless the vital message of the power of knowledge and the opportunities to be derived therefrom are driven home at the village and not at the school only; and that health and nutrition occupy a central place in future educational and employment strategy." The Report has suggested three educational and training programmes for the drop-outs; "(i) continuance of general education with vocational bias; (ii) occupational training to those who have committed themselves to specific occupations and (iii) occupational training to others according to preferences indicated by the drop-outs on the basis of their own estimates of profitable occupations or manpower needs of the area." A major conclusion of the State Planning Commission, Task Force Report is "This means that the wastage of 51·2 per cent of students in the first five years of school and the dropping out of 53 per cent of students between P.U.C. and the first year of ot all degree courses including professional ones, which are traceable primarily to economic causes with academic ones playing a secondary role, call for an educational programme which can be carried to the places where the drop-outs live or are at work."

From the forgoing it appears evident that the remedial measures to reduce wastage in education seems to lie in (i) propaganda to motivate both parents and children in the

absolute need for education and its advantages (2) some reforms in the education system to meet the needs and convenience of the children and parents and (3) the developmet of the economic conditions. Of these the last one is beyond the purview of the present treatise. But before making any suggestions in this regard, the extent of adult illiteracy in the state has also to be taken into account so that combined measures may be thought out for the education of dropouts and illiterates.

CHAPTER 4

ADULT LITERACY IN TAMIL NADU

Adult Literacy

Illiteracy is a world problem, with varying intensity and gravity in different countries of the world. The disturbing feature of the world picture is that although the percentage of illiteracy has fallen, the total number of illiterates has risen. Table below is ample evidence.

Table 15.

ESTIMATED NUMBERS (IN MILLIONS) AND PERCENTAGE OF ILLITERATE ADULTS (15*) IN THE WORLD.

Year	Adult Population	Literates	Illiterates	Percentage of total illiterates
1950	1579	879	700	44.3
1960	1869	1134	735	39.3
1970	2287	1504	783	34.2

Source : Literacy 1969-71, UNESCO, 1972

In the two decades 1950-60 and 1960-70, the percentage of adults (15 years and above) who are illiterates have fallen by five percentage points each. But the total number of illiterates have risen by 35 and 48 millions in the period totalling to 783 million illiterates in 1970. There is, however, the encouraging aspect that during these two decades the total number of literates has also been rising by over 250 millions and 360

millions. The figures tentatively suggested by the statistics office of UNESCO for 1980 are a projected world adult population of 2,823 millions and 820 millions adult illiterates. Estimates, broken down by region show that Africa (73·7) and Arab States (73) have the largest percentage of illiteracy in their adult population followed by Asia (46.8) and Latin America (23.6) as in 1970. Another feature evident in the world study is that the percentage of illiterates to total population is larger for women than for men, as evidenced by regional statistics. Yet another revealing fact which came out of a study of 19 nations in respect of the total population and number of illiterates is that in countries with a percentage illiteracy of about 70 the illiterates increased in number, while the countries with an illiteracy percentage of 35 or less, show a decrease in number of illiterates. Therefore, 35 per cent illiteracy might be considered as a target figure. These trends in illiteracy are reflected in the illiteracy of all countries.

SECTION 1. LITERACY

1 All India and Tamil Nadu

The percentage of literate population to the total population in Tamil Nadu was only 20·8 in 1951. But the percentage increased to 31·41 in 1961 and to 39·39 in 1971 as against the All India percentage of 16·6, 24·03 and 29·34 respectively. The proportion of literates to the total population (including population aged 0-4 years) in India and the major States in 1951, 1961 and 1971 is given in Table 16.

TABLE 16.

	1951	1961	1971
	No. of literates to 1000 persons	No. of literates to 1000 persons	No. of literates to 1000 persons
Andhra Pradesh	132	212	246
Assam	183	274	288
Bihar	122	184	198
Gujarat	230	305	357
Jammu & Kashmir	N.A.	110	183
Kerala	407	468	602
Madhya Pradesh	98	171	221
Madras (Tamil Nadu)	208	314	394
Maharastra	209	298	391
Mysore	193	254	315
Orissa	158	217	261
Punjab	152	242	334
Rajasthan	89	152	188
Utter Pradesh	108	176	216
West Bengal	240	293	331
India*	166	240	293

* Excludes the population of Jammu and Kashmir, Pondicherry and North East Frontier Agency

N. A. denotes not available

Source: 1961 Census and Tamil Nadu Economic Appraisal 1972.

Compared to other states, Tamil Nadu held only the fifth rank in literacy in 1951, following Kerala, Gujarat, West Bengal and Maharashtra. But in 1961 and 1971, the State has moved up to the second place next only to Kerala, which had the literacy proportion of 468 and 602 to 1,000 persons in these years. And in all the three years the proportions have been above the All India figures. As in all other States the literacy proportion has risen in Tamil Nadu in the two decades. The figures indicate a growth in literacy of 25·41 per cent in Tamil Nadu while the All India growth rate is 22·14 in the last decade.

CHART II

LITERACY PERCENTAGE - TAMIL NADU - DISTRICTS

1951, 1961, 1971.

Source : T. N. Economic Appraisal, 1971.

2. Literacy in Districts

Chart II shows the percentages of literate population in each of the 14 districts in 1951, 1961 and 1971, and the State. Madras city, the purely urban area, has the highest literacy percentage in all the three years, being 50·2, 59·47 and 62·05. Among other districts, Kanyakumari, which was part of the erst-while princely State of Travancore, holds the second rank over the years having 37.1 per cent, 48.57 per cent and 58·10 per cent. Tirunelveli district had the third highest percentage of literacy in 1951 and 1961 (36·38 and 44·97). But in 1971, Nilgiris moved into the third place with 47·27 per cent literacy. The lowest literacy percentage in 1951 was in Salem district which at that time covered the present district of Dharmapuri. In 1961 and 1971, Dharmapuri district had the lowest per centages of literacy with 15.70 and 22·07. The next lower literacy percentage is in Salem district with 22·14 and 31·39 respectively in the two years.

It is further evidenced from the data that over two decades 1951-61 and 1961-71, the percentage of literacy has increased considerably in the State and all the districts. However, it is seen that the percentage points of increase in the later decade-1961-71 are lower than the earlier decade 1951-61, except in Chingleput Dharmapuri and North Arcot. The seven districts of Madras, Kanyakumari, Nilgiris, Tirunelveli, Madurai, Thanjavur and Ramanathapuram have percentages of literacy above the State literacy percentage of 39·39 in 1971.

The statistical data further points out a certain geographic contiguity in the areas where literacy is comparatively low, viz Dharmapuri, Salem, North Arcot and South Arcot.

3. Literacy among Males and Females

Table 17 shows the percentages of total population and the percentages of male and female literates to the total population in the 14 districts of the State for 1961 and 1971.

TABLE 17.

PERCENTAGE OF LITERATES TO TOTAL POPULATION

	1961			1971		
	Persons	Males	Females	Persons	Males	Females
Madras	59.47	69.61	48.22	62.05	70.48	52.70
Chingleput	27.89	40.21	15.06	39.1	50.73	26.65
North Arcot	24.72	37.12	12.19	34.3	47.02	21.17
South Arcot	26.71	40.55	12.65	31.5	44.65	17.90
Dharmapuri	15.70	23.18	7.46	22.1	31.35	12.50
Salem	22.14	32.72	11.35	31.4	42.50	19.81
Coimbatore	30.20	43.28	16.66	38.8	50.94	26.13
The Nilgiris	35.68	48.27	21.92	47.3	58.79	35.11
Madurai	33.38	48.12	18.62	41.6	54.90	28.14
Tiruchirapalli	29.93	44.69	15.30	37.4	51.38	23.39
Thanjavur	33.55	48.67	18.65	39.9	53.42	26.60
Ramanathapuam	32.11	48.34	16.79	39.5	54.47	25.22
Tirunelveli	36.38	49.99	23.46	45.0	57.40	33.05
Kanyakumari	48.57	56.24	40.73	58.1	64.10	51.94
State	31.41	44.54	18.17	39.39	51.68	26.83

Source: 1971 Census-Provisional figures

The percentage of literacy among males and females have increased in all the districts in 1971 as compared to 1961 in varying degrees. The highest percentage points of increase among male literates are in the districts of Chingleput and Nilgiris, closely followed by North Arcot and Salem. In the increase in percentage points of literacy among females, Nilgiris stands out as the district with the highest increase, followed by Chingleput, Kanyakumari, Coimbatore and Madurai. A significant feature that emerges from the data is that for Madras city which has the highest percentages in male and female literacy, the percentage points of increase for male and female are meagre from 69·61 to 70·48 and from 48·22 to 52·70 in 1961 and 1971 respectively.

4. Literacy in Urban and Rural Areas

Tables 18 and 19 give the statistical analysis of literacy in urban and rural areas of the districts of Tamil Nadu for 1961 and 1971. In the year 1961 there was no separate figures for Dharmapuri which was part of Salem district.

In 1961, Madras, Kanyakumari and Thanjavur held the first three places in literacy (urban) while in 1971 Tiruchirapalli with 67·03 per cent and Kanyakumari with 66·77 per cent ranked the first and second with Madras holding the third place with 62·05 per cent. The reasons for this sudden change to a high literacy in urban Tiruchirapalli are not clear. In both 1961 and 1971, Salem had the lowest percentage in literacy in urban areas. In male literacy while Madras had the highest percentage in 1961, Tiruchirapalli came to the fore in 1971. In both the years Kanyakumari had the highest percentage in female literacy and Madras the second highest. The figures for the rural areas show that Kanyakumari has the highest percentage in male and female literacy in both 1961 and 1971. While in 1961, Tirunelveli had the second highest literacy among males and females, in 1971 Nilgiris rose to the second rank. The literacy

Table: 18

LITERACY IN URBAN AND RURAL AREAS

Proportion of literates per 1,000 of population in the rural and urban areas of the State and Districts-1961

State/District	URBAN			RURAL		
	Total	Males	Females	Total	Males	Females
Madras	595	696	482			
Chingleput	456	587	326	230	350	105
North Arcot	426	554	295	202	325	78
South Arcot	419	597	318	239	377	98
Salem	413	538	282	157	248	65
Coimbatore	470	599	331	233	363	101
Nilgiri	415	556	323	287	424	139
Madurai	484	633	352	260	410	111
Tiruchirapalli	517	651	378	241	390	94
Thanjavur	519	659	380	288	442	137
Ramanathapuram	481	633	334	269	433	114
Tirunelveli	480	616	350	311	447	183
Kanyakumari	576	655	495	470	546	392
State	499	627	367	247	378	116

Source: 1961 Census

TABLE 19.

LITERATES AS PERCENTAGE OF TOTAL POPULATION—1971

Districts	URBAN			RURAL		
	Persons	Males	Females	Persons	Males	Females
Madras	62 05	70.48	52 70	..	..	..
Chingleput	54 56	65 51	42 61	30 79	42.70	18.31
North Arcot	52.05	62 73	41 01	29.56	42.85	15.96
South Arcot	53.75	64 71	42 26	27 78	41.29	13.90
Dharmapuri	49.26	59 53	38 49	19.51	28.68	10 08
Salem	47 74	58 65	36.30	25.46	36.60	13 97
Coimbatore	54 34	65 45	42 36	30 21	42 71	17 37
Nilgiris	53.01	63.05	42 20	41.67	54.56	28.33
Madurai	57.34	68.09	46 19	33 63	48.09	19.15
Tiruchirapalli	67.03	81 61	51.84	28 98	42 55	15.42
Thanjavur	55.26	66.26	44.17	35 86	50 10	21.56
Ramanathapuram	55 42	67.75	43 23	33.92	49.68	18 99
Tirunelveli	54 94	66 10	44 03	41.24	53 22	27 93
Kanyakumari	66.77	72 26	61 23	56 37	62.48	50 06
State	56.78	67.46	45 50	31.83	44.68	18 97

Source: Censes of India, 1971—Part 1 of 1971—Supplement.

percentages in districts have risen in both male and female literacy in 1971 as compared to 1961. The lowest percentages of male and female literacy are in Dharmapuri in 1971—28·68 per cent for males and 10·08 per cent for females. The corresponding figures for Salem are 36.60 and 13.97. Compared to other districts South Arcot has also low percentages in male and female literacy—41·29 and 13·90 as in 1971. The highes increase in percentage points in urban areas has been in Tiru chirapalli during the decade 1961 and 1971 with over 15 points. The total percentage points increase in rural areas has been in Nilgiris during the decade with over 13 points increase. It is also interesting to note that the lowest increase in percentage points in literacy in urban areas has been in Madras, with only a 2·55 increase in points.

The wide gap between literacy percentages in urban and rural areas of Tamil Nadu are also evident from the figures. The literacy percentage for urban areas of the State is 56·73 while that for rural areas is 31.83, a difference of nearly 25 percentage points. The greatest difference in urban and rural total literacy percentages in districts is in Tiruchirapalli with a percentage of 67·03 for urban areas and 28·98 percentage for rural areas. Similarly in Dharmapuri there is a wide gap of about 30 percentage points in the total literacy percentages for urban (49·26 per cent) and rural (19.51 per cent) areas (1971).

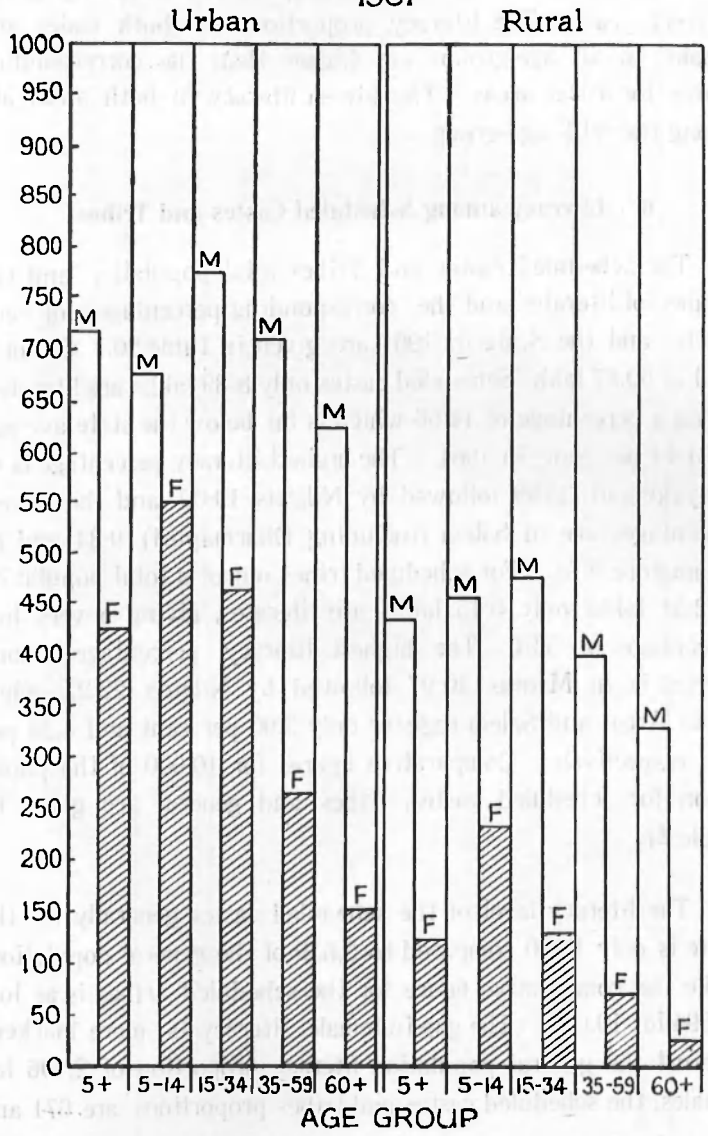
In both urban and rural areas the percentage literacy in every district for females is considerably lower than that of males. For the State as a whole, the urban literacy percentage of males is 67·46 while that of females is only 45·50. Similarly the male literacy percentage to total population in rural areas is 44·68 and for females 18·97.

5. Literacy according to age-group

Chart III designed from the data in the 1961 Census gives tanidea of the literate persons per thousand of the population

CHART III

LITERACY ACCORDING TO AGE-GROUP (per thousand)
1961



in broad age groups in the urban and rural areas of Tamil Nadu. The hignest proportion in urban and rural areas for males are in the age-group of 15-34 years while for females for both urban and rural areas the highest proportion is in the age-group of 5-14 years. The literacy proportions for both males and females in all age-groups are higher than the corresponding figures for rural areas. The lowest literacy in both areas are among the 60+ age-group.

6. Literacy among Scheduled Castes and Tribes

The scheduled castes and Tribes total population and the number of literates and the corresponding percentages for each district and the State in 1961 are given in Table 20. Out of a total of 60.67 lakhs Scheduled castes only 8·89 lakhs are literates, giving a percentage of 14·66 which is far below the state average of 31·41 per cent in 1961. The highest literacy percentage is in Kanyakumari 36·99 followed by Nilgiris 19·00 and the lowest percentages are in Salem (including Dharmapuri) 9·34 and in Coimbatore 9·74. For scheduled tribes out of a total population of 2·51 lakhs only 0·15 lakhs are literates, giving a very low percentage of 5.91. The highest literacy percentage among district is in Madras 40·97 followed by Nilgiris 22·27, while North Arcot and Salem register only 3.90 per cent and 4.24 per cent respectively. Comparative figures for 10,000 of the population for scheduled castes, tribes and general are given in Table 21.

The literacy level of the scheduled castes generally for the State is only 1,720 compared to 3,639 of the general population, while the comparative figure for the scheduled tribes is as low as 694 for 10,000. The gap in female literacy is more marked. Against the general population literacy proportion of 2,106 for females, the scheduled castes and tribes proportions are 671 and

TABLE 20.

LITERACY AMONG SCHEDULED CASTES AND TRIBES 1961

Districts	SCHEDULED CASTES			SCHEDULEDTRIBES		
	Total Population	Literates	Percentage	Total Population	Literates	Percentage
Madras	2,14,103	84,910	13 66	1,396	572	40 97
Chingleput	6,16,640	85 522	13 87	26,327	1 263	4 80
North Arcot	6,20,703	85,195	13.73	59,304	2 313	3 90
South Arcot	8 01,681	1,06,044	13 23	13 536	620	4.58
Salem	5,52,184	51,531	9.34	1,00,516	4,257	4.24
Coimbatore	5 32,592	51,905	9.74	20 143	951	4.72
Nilgiris	77,612	14,749	19.00	12,948	2,883	22.27
Madurai	4,00,133	71,890	14.67	5,510	887	16.10
Tiruchirapalli	5,65,629	91,751	16.22	8,801	706	8.02
Thanjavur	7,50 599	1,04,500	13 92	273	32	11.72
Ramanathapuram	3,73,268	52,605	14.09	792	159	20.08
Tirunelveli	4,31,150	73,954	17.15	703	114	16.22
Kanyakumari	40,833	14,919	36.99	1,742	128	7 35
Dharmapuri	..	..	..	..	..	..
State	60,67,327	8,89,515	14.66	2,51,991	14,885	5.91

Source : Census of India, 1961

TABLE 21.

LITERATES PER 10,000 OF EACH SEX AMONG S C. AND S.T. 1961.

Districts / State	SCHEDULED CASTES			SCHEDULED TRIBES			GENERAL POPULATION		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
Madras ..	4 680	6,159	3,032	4,455	6,478	2,571	6,855	7,976	5,594
Chingleput North ..	1,643	2 645	648	461	793	105	2,893	4,345	1,429
South Arcot ..	1,557	2,521	583	529	803	255	3,117	4,720	1,481
Salem ..	1,091	1,772	378	497	816	158	2,314	3,435	1,164
Coimbatore ..	1,152	1,814	470	580	881	265	3,457	4,947	1,910
Nilgiris ..	2,247	3,724	717	2,617	2,967	2,240	4 210	5,651	2,607
Madurai ..	1,729	2,884	570	1,848	2,584	1,034	3 879	5,596	2,162
Tiruchirapalli ..	1,886	3,156	607	961	1 475	380	3,442	5 139	1 759
Thanjavur ..	1,597	2,692	478	1,339	2,400	175	3 863	5,614	2,145
Ramanathapuram ..	1,655	2,855	465	2,227	3 296	1,170	3 731	5 647	1.942
Tirunelveli ..	2,031	3 279	822	1,818	2,131	1,438	4,185	5 778	2,685
Kanyakumari ..	4 274	5,429	3,157	855	i,004	681	5,651	6,550	4,734
State ..	1,720	2,754	671	694	1,041	323	3,639	5,159	2,106

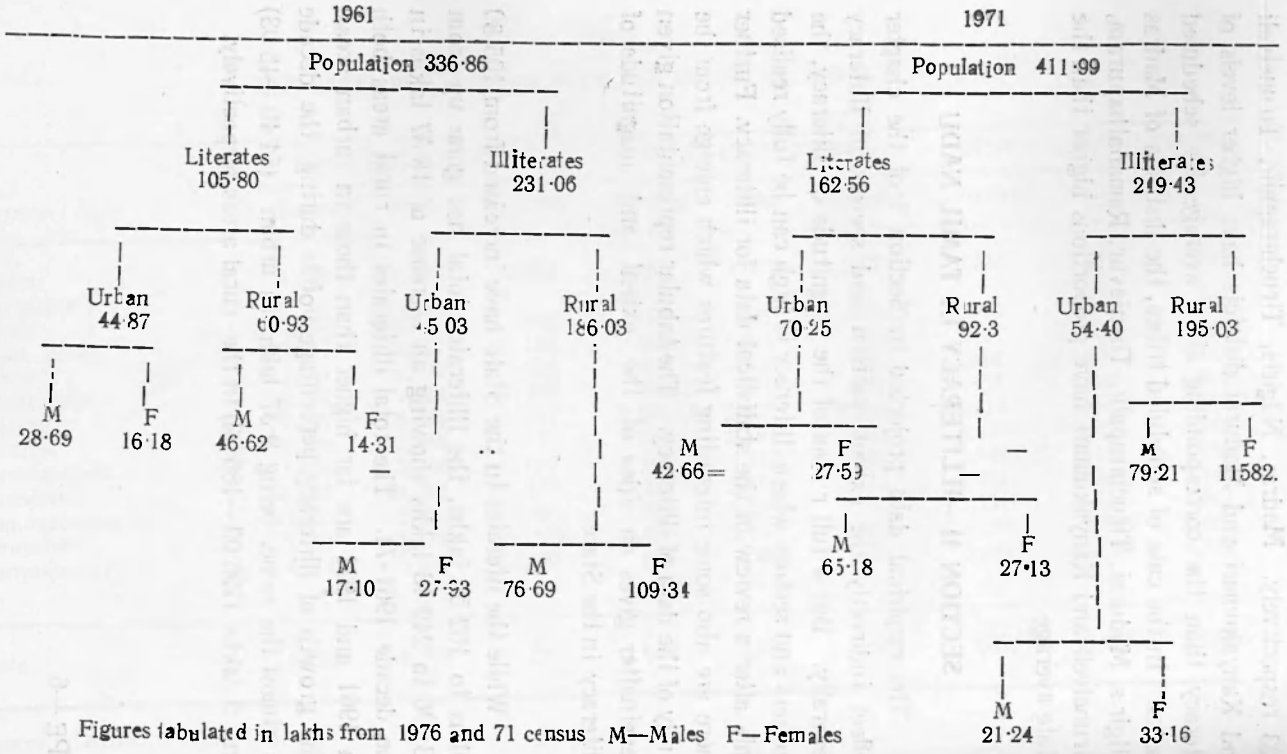
Source : Census of India 1961.

323 respectively. Madras, Nilgiris, Tiruchirapalli, Tirunelveli and Kanyakumari and Madurai districts have higher levels of literacy than the corresponding state average for scheduled castes. In the case of scheduled tribes, the districts of Madras Nilgiris, Madurai, Tiruchirapalli, Thanjavur, Ramanathapuram, Tirunelveli and Kanyakumari have proportions higher than the State average.

SECTION II—ILLITERACY IN TAMIL NADU

The empirical data projected in Section I of the chapter reflect indirectly the extent, pattern and sectors of illiteracy generally. But a fuller idea of the magnitude of illiteracy, the pockets and sectors where illiteracy is high can be fully realised only after a review of the statistical data for illiteracy. Further there are also some interesting features which emerge from the study of the data of illiteracy. The tabular representation given hereinafter gives an idea of the extent and magnitude of illiteracy in the State.

While the literates in the State have increased from 105·80 lakhs to 162·56 lakhs, the illiterates total has gone up from 231·06 to 249·43 lakhs showing an increase of 18·37 lakhs in the decade 1961-71. The total illiterates in rural areas both in 1961 and 1971 are far higher than those in urban areas. The growth of illiteracy percentage points during the decade is almost the same, being 9·37 lakhs in urban (54·40—45·03) and 9 lakhs (195·03—186·03) in the rural areas respectively.



Figures tabulated in lakhs from 1976 and 71 census M—Males F—Females

TABLE 22

1961 CENSUS COMPILED FROM TABLES B-III—PART A & B VOL. IX, PART II-B (1)

	URBAN					RURAL				
	Literates			Illiterates		Literates			Illiterates	
	Persons	Males	Females	Males	Females	Persons	Males	Females	Males	Females
Madras ..	17,29,141	6,33,203	3,95,123	2,76,498	4,24,317	..	..	..	..	..
Chingleput ..	4,55,598	1,40,406	71,765	94,707	1,48,720	17,[illegible]0,734	3,10,181	90,156	5,75,297	7,65,100
North Arcot ..	6,31,225	1,76,113	92,608	1,41,770	2,20,734	25,[illegible]5,101	4,11,020	1,98,088	8,52,923	11,53,070
South Arcot ..	3,92,322	1,18,682	61,562	80,116	1,31,962	26,55,651	5,04,204	1,29,731	8,32,926	11,88,790
Salem ..	6,17,348	1,69,393	85,452	1,45,256	2,17,247	31,86,760	3,99,220	1,02,454	12,10,016	14,75,070
Coimbatore ..	10,32,169	3,20,268	1,64,582	2,14,523	3,32,796	25,25,302	4,62,845	1,26,534	8,11,955	11,23,968
Nilgiris ..	1,79,867	52,581	27,543	41,965	57,778	2,29,441	50,630	15,330	68,657	94,845
Madurai ..	10,15,745	3,26,146	1,75,958	1,89,119	3,24,522	21,95,482	4,47,262	1,22,669	6,44,702	9,80,829
Tiruchirapalli.	6,78,071	2,23,957	1,26,446	1,19,981	2,07,687	25,12,007	4,85,865	1,18,659	7,58,623	11,48,857
Thanjavur ..	6,61,620	2,17,477	1,25,959	1,12,568	2,05,516	25,84,407	5,66,306	1,79,113	7,13,890	11,25,093
Ramanathapuram ..	5,99,481	1,85,953	1,02,189	1,07,669	2,03,670	18,22,307	3,82,394	1,07,023	4,99,753	8,33,137
Tirunelveli ..	8,47,982	2,55,827	1,51,432	1,59,699	2,80,924	18,82,397	4,09,095	1,76,964	5,05,598	7,90,739
Kanyakumari.	1,50,979	49,471	35,941	26,044	37,623	8,46,836	2,33,823	1,63,942	1,94,397	2,54,674
Dharmapuri ..	..	..	..	..	..	..	..	..	..	..
State ..	89,90,528	28,69,477	16,17,640	17,09,915	27,93,496	216,96,425	46,62,846	14,30,653	76,68,740	109,34,186

Total Literates=105,80,616 (Urban 44,87,117 and Rural 60,93,499)
Total Illiterates=231,06,337 (Urban 45,03,411 and Rural 186,02,926)

TABLE 23.

1971—PROVISIONAL FIGURES

	URBAN					RURAL				
		Literates		Illiterates			Literates		Illiterates	
	Persons	Males	Females	Males	Females	Persons	Males	Females	Males	Females
Madras ..	24,69,449	9,15,448	6,15,918	3,81,707	5,56,336	..	..	..	..	..
Chingleput ..	10,10,690	3,49,320	2,10,579	1,78,058	2,72,723	18,96,909	4,23,471	1,71,765	5,42,119	7,59,553
North Arcot ..	7,83,095	2,53,760	1,59,889	1,43,994	2,25,452	29,72,702	6,52,288	2,36,004	8,55,338	12,29,092
South Arcot ..	5,12,997	1,70,462	1,07,757	92,140	1,42,638	31,04,726	6,38,926	2,09,252	9,35,422	13,21,126
Salem ..	7,95,382	2,40,344	1,44,532	1,66,815	2,43,691	21,97,234	4,10,167	1,53,959	7,07,003	9,26,105
Coimbatore ..	15,56,242	5,24,585	3,12,797	2,83,227	4,35,633	28,16,936	6,22,647	2,41,059	8,04,580	11,48,640
Nilgiris ..	2,43,235	79,499	49,351	46,709	67,676	2,50,780	69,114	34,376	58,738	88,490
Madurai ..	13,24,194	4,61,253	2,98,714	2,13,028	3,51,199	26,14,003	6,30,648	2,44,245	6,77,976	11,61,134
Tiruchirapalli.	8,57,008	3,05,815	2,07,205	1,30,934	2,13,054	29,91,808	6,83,957	2,46,547	8,11,815	12,49,459
Thanjavur ..	7,88,038	2,59,594	1,72,151	1,35,857	2,20,436	30,52,694	7,63,084	3,28,291	7,67,508	11,93,811
Ramanathapuram ..	7,46,662	2,52,002	1,62,653	1,19,235	2,12,752	21,13,545	5,14,454	2,07,500	5,15,124	8,76,467
Tirunelveli ..	10,29,496	3,35,194	2,28,511	1,73,787	2,92,004	21,71,019	5,60,387	3,10,717	4,98,190	8,01,725
Kanyakumari.	2,04,405	73,617	61,576	29,103	40,109	10,18,144	3,23,835	2,52,647	1,93,328	2,48,333
Dharmapuri ..	1,43,941	44,612	27,698	29,125	42,596	15,33,834	2,25,229	77,004	5,53,308	6,78,239
State ..	124,64,834	42,65,565	27,59,241	21,23,729	33,16,299	287,34,354	67,18,218	27,12,369	79,20,509	115,82,238

Total Literates= 162,56,393 (Urban 70,24,806 and Rural 92,31,587)
Total Illiterates= 249,42,775 (Urban 54,40,028 and Rural 195,02,747).

Madras city, although it had the highest percentage of literacy in 1961 had 7 lakhs urban illiterates in 1961 followed by Coimbatore 5·47 and Madurai 5·13 lakhs. Similarly in 1971 Madras had an illiterate population of 9 37 lakhs, Coimbatore 7·18 lakhs and Madurai 5·64 lakhs. These districts, of course, have very high population. In rural areas in 1961, the highest number of illiterates were in Salem (including Dharmapuri) 26·85, South Arcot 20·20 and North Arcot 20·05 lakhs respectively. In 1971 the rural data show an illiterate population of 22·86 lakhs in South Arcot, followed by North Arcot 20·84 lakhs and Tiruchirapalli 20·60 lakhs, while for Salem and Dharmapuri separate figures are given—16·33 and 12·31 lakhs respectively. In 1971 in all districts in the urban population the total number of male literates is more than the illiterates, showing a total of 42·65 lakhs male literates as against 21·23 lakhs illiterates. The female literate population, on the other hand, in urban areas of all districts is less than the illiterates, except in Madras and Kanyakumari districts. In the rural population the total number of male literates is less in all districts except Nilgiris, Tirunelveli and Kanyakumari. Similarly the female literates are also less than the illiterates except in Kanyakumari district.

Detailed statistical data of number of illiterates in the Census's classification of 1961 of workers and non-workers is given in Table 24.

In both urban and rural sectors the largest number of iliterates are in the 'Non-workers' class. The second largest number in urban areas is in "Other Services" while in rural areas it is "Cultivator and agricultural labourer" class. The figures show that the combined urban and rural illiterate population are mainly under the classifications:

TABLE 24.

Compiled from Census of India 1961—B III Part A and B—Industrial Classification of Workers and Non-Workers by Educational levels

WORKERS—URBAN

Educational levels	Total Population of Workers and Non-workers			As cultivators			As agricultural labourers		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
Total Illiterates	89,90,528	45,79,392	44,11,136	2,09,855	1,54,874	54,931	1,55,131	83,794	71,337
	45,03,411	17,09,915	27,93,496	1,12,402	62,996	49,406	1,28,797	59,950	68,847
RURAL									
Total Illiterates	216,96,425	123 31,586	123,64,839	62,47,978	40,75,154	21,72,824	26,73,243	13 61,247	13,11,996
	186,02,926	76,68,740	109,34,186	43,92,410	23,22,386	20,70,024	23,41,694	10,60,343	12,81,351

WORKERS—URBAN

Educational levels	In mining, quarrying, livestock forests etc			At Household Industry		
	Persons	Males	Females	Persons	Males	Females
Total Illiterates	1,27,022	90,878	36,144	3,79,568	2,08,291	1,71,277
.. .. ..	82,723	49,527	33,196	2,04,912	72 318	1,32,594

RURAL

Total Illiterates	3,08,476	2,39,728	68,748	8,27,244	4,72,761	3,54,483
....	2,37,865	1,72,377...	65,488	5,51,141	2,52,250	2,98,891

CENSUS OF INDIA 1971— PROVISIONAL POPULATION TOTALS

TABLE V 1971 CENSUS (PROVISIONAL FIGURES)

LITERACY

State/District	Total Population			Literate Population 1971		
	Persons	Males	Females	Persons	Males	Females
Madras	2,470,238	1,298,786	1,171,502	1,532 859	915,441	617,418
Chingleput	2,889 143	1,488 272	1,400,871	1,128 319	754,991	373,328
North Arcot	3,738,273	1 891,886	1,846,387	1,280 548	859,608	330 940
South Arcot	3,606,961	1,830,906	1,776.055	1,135,340	817,454	317,886
Dharmapuri	1,674,193	850 019	824,174	339,436	236,492	102.994
Salem	2,986,686	1,519,496	1,467,190	947,098	645,765	291.632
Coimbatore	4 357,373	2 227,668	2,129,705	1,691 310	1,134,749	556,560
The Nilgiris	491 330	252 269	239,061	242,245	148 320	93,925
Madurai	3,931,104	1,977,819	1,953,285	1,635,422	1,085 818	549,604
Tiruchirapalli	3,844,901	1,930,368	1,914,533	1,439,619	991,802	447,817
Thanjavur	3,832,740	1,921,548	1,911,192	1,527,413	1,026,586	500 827
Ramanathapuram	2 857 424	1,398 196	1,459,228	1,129 570	791,623	337,942
Tirunelveli	3,194 494	1 562,992	1,631,502	1,436,626	897,234	539,392
Kanyakumari	1,328 215	662,324	665,891	713,557	398,883	314,684
Tamil Nadu	41,103,125	20,772,549	20,330,576	16,189,712	10,734,753	5,454,954

PERCENTAGE OF LITERATES TO TOTAL POPULATION

1961			1971		
Persons	Males	Females	Persons	Males	Females
59.47	69.61	48.22	62.05	70.48	52 70
27.89	40.21	15.06	39.1	50.73	26 65
24.72	37.12	12.19	34.3	47.0?	21 17
26.71	40.55	12.65	31.5	44.65	17.90
15.70	23.68	7.46	22.1	31.35	12.50
22.14	32.75	11.35	31.4	42.5(	19.81
30.20	43.28	16.66	38.8	50.94	26 13
35.68	48.27	21.92	47.3	58.79	35.11
33.33	48.21	18.62	41.6	54.9(	28.14
29.93	44.69	15.30	37.4	51.3(	23 39
33.55	48.67	18.65	39.9	53.4?	26.60
32.11	48.34	16.79	39.5	54.47	25.22
35.38	49.99	23.46	45.0	57.40	33.06
48.57	56.24	40.73	58.1	64 10	51.92
31.41	44.54	18.17	39.?9	51.08	26 83

Non-workers—130·12 lakhs, cultivators 45·04 lakhs Agricultural labourers 24·69 lakhs.

From the empirical data tabulated on previous pages, the following facts are evident:

(1) The state of Tamil Nadu has a high percentage of illiteracy 60·61.

(2) The total number of illiterates has increased from 231·06 lakhs to 249·42 from 1961 to 1971 of which the majority are in the rural areas, 195·02 in 1971, although there is a rise in literacy percentage.

(3) The female illiteracy is greater than the male illiteracy. The female literacy is highest in the age group 5-14 years and the male in the age-group 15-34 years.

(4) There is a geographic continuity in illiteracy among district covering Dharmapuri, Salem, North Arcot and South Arcot where literacy percentages are lower than other districts.

(5) In urban areas of Madras, Coimbatore and Madurai there are large numbers of illiterates.

(6) The proportion of literacy among scheduled castes and tribes are lower than that of the general population.

Measures taken to irradicate illiteracy have, therefore, to take into account these tendencies, pockets and sectors of illiteracy.

The attempts made for the irradication of illiteracy in the State is discussed in Chapter V together with suggestions for improving the literacy in the State.

CHAPTER 5

RECOMMENDATIONS

THE recommendations for the reform of the education system given here emerge from the discussions in the previous chapters and may be considered as a synthesis of the reflections on the inadequacies evident in the present education system of the State. They are not ideological departures in educational thinking, but are a set of practical suggestions to meet some of the existing difficulties and may be considered as a framework for reference by those responsible for re-organisation of education. They proceed from the belief that the present quantitative trends, though adequate, have not met the changing needs of the times in the new requirements of the content of education and the problems of the society to meet the needs of the poor majority. Perhaps, a totality of goals is an essential concept in education reform. The present study is however, on restricted areas. The present accepted world guiding principle for educational policy is the idea of life-long education. Therefore, Primary education and literacy for the illiterates, both of which are dealt with in this monograph and both of which form the basic necessity for such a principle, are of paramount importance.

On a more practical basis for the planning and designing of programmes for change and reform of the present education system, one has in the first instance to locate the principal *sectors* of society to be benefitted, lay down *aims and objectives* of education in general with particular reference to the level concerned, (namely Primary), establish *priorities*, take into consideration the major *concepts* on which reforms are to be based and design the structural, curricular, and administrative changes required, with an eye on financial resources available.

Sectors

It is evident from the description and analytical data given in the foregoing pages, that there are two distinct sectors of the population to be reckoned with in considering reforms or restructurisation of the education system as a whole in the State of Tamil Nadu. Firstly, the school-age children in the present education system, which is limited to the Primary stage in the treatise. Secondly, the sector consisting of three population groups viz., children who never joined school, which is a small percentage of the population as per empirical evidence, the children who discontinued from school at various levels and lapsed into illiteracy and the adult illiterates. On an age-group basis, the first sector is of children of 6 to 11 years in Primary schools, the second sector of children and youths of 6-17 years and adults of 18 to 55 years—adults above 55 years being only a small percentage of the population. The second sector has arisen mainly as a result of the inadequacies and defects of the formal education system and the socio-economic conditions over which the school system has very little control.

The recommendations are thus accordingly structured on the above basis. The first sector falls in the purview of the formal education system and the reforms should be for the system. In the second sector for the group comprising of illiterate children and youths, who may not have developed any skill and are either unemployed or employed in some odd jobs or helping in the family vocation, non-formal education to provide literacy and skill in some trade, seems to be the answer. Probably, re-entrance to the formal school system, after some training, could also be considered for them. And so far as the adult illiterates are concerned, they may either be employed having developed some skills or unemployed. It has to be remembered that they would already be running a house-

hold and any course of more literacy may not hold any attraction for them. Functional literacy centred round some vocation or non-formal education to develop some skills could be of benefit to them. The role of the school system in these two forms of non-formal education has also to be considered.

Aims and Objectives

The starting point for consideration of reforms in education, apart from identifying the social sectors concerned, appears to be a reiteration of the aims and objectives of education. The objectives of the system of education, science and technology have been defined in general terms in " Towards a Learning Society ", the report of the Task Force on Education, Science and Technology of the Tamil Nadu, State Planning Commission, as follows:

" Development of the personality of the child and its discrete and harmonious growth as a member of a group bearing on its affective life and work experience; understanding of the culture and history of the State; the country and the world; instruction in the moral and spiritual values of the country; acquisition of scientific, technical and professional skills; promotion of research to push back the frontiers of knowledge and slove the technical and developmental problems faced by the state and the country and democratisation of education, through meeting the growing demand for education and provision of social compensation for the condition of the poor majority of the State's population ". To these may be added a fundamental objective which education serves namely that it forms the basis for national and international communication and understanding.

It, is, therefore, evident that from the point of view of the State and country, education is for developing a citizenry imbued

with the country's aspirations and for creating the manpower required. As a social investment it is to serve democratisation of education and provide social compensation for the poor majority. For the individual education means literacy, acquisition of skills and consequent employment opportunity and development of personality. For achieving these objectives the role of education in the total programme of national and individual development has to be re-evaluated and the changes needed in the existing system of education re-considered.

Besides the general objectives quoted above, for planning provisions for meeting the educational requirements of children and adult illiterates,one must first have a clean and realistic conception of the minimum essential learning needs. The assertion that a child has a right to learn and that an illiterate should be educated has no meaning unless the 'right' and 'necessity' are met by some practical methods for attaining some minimum package of skills, knowledge and attitude. Despite the diverse needs and environment, in more practical terms the package should be literacy and numeracy knowledge and skills for operating a household, knowledge for civic participation and positive attitudes towards learning, co-operation with fellow men towards national development. On this basis the objectives of Primary education and adult literacy may be further specified.

In defining the goals of Primary education one significant fact to be realised is that this stage is perhaps, the most important educational level both from the point of view of the individual and the State because of two reasons, firstly, this is stage which all children are likely to attend and perhaps, the only course of education a large majority of them will ever have, in the existing socio-economic conditions. Secondly, Primary education provides the children the opportunity for acquiring the basic skills for future learning and will, therefore, make a

considerable difference in the lives of the individuals. For example, the ability to read opens to the individual the large store house of knowedge and the skill in numbers the ability to transact ordinary everyday business in a money economy. Similarly literacy for the illiterates, whatever forms and methods it may take, serves the same purpose.

Objective of Primary Education

The major objectives of Primary education may be defined as literacy and numeracy and an awakening in the child a desire and inclination for further learning. This literacy and numeracy should not be a mere knowledge of words and numbers, but should be so designed as to enable the child to apply his knowledge to problems in his daily life, to understand in an elementary way his environment and to develop some sense of personal hygiene. This age level is apparently the best suited to instil some sense of discipline and for physical education. Simlarly education for the illiterates should emphasise on literacy and numeracy but should be built around some vocation or trade and should be adjusted according to the age-group, so as to make it useful to the individual and consequently acceptable. For adults it should also help them to understand their rights and privileges as citizens.

Priorities

Enrolment, as evident from empirical data, being satisfactorily high in Primary schools, the first priority is to design ways and means of reducing the number of students discontinuing from school particularly in the first two classes. The enhancement of enrolment of girls so as to reach a parity with that of boys, is also necessary. The education of scheduled castes and tribes has to be further encouraged so as to reach the same level of enrol-

ment as that of the other communities. In launching any scheme of adult literacy the first priority is that of creating an organisational infrastructure for planning, designing, launching and implementing a scheme, as it would be beyond the capacity of any single authority, like the government to undertake the same because of the magnitude of the finances involved and the vastness of the population that is to be covered. The first step to be taken in such a scheme is to motivate the illiterate to learn and create a consciousness in the state of the urgency and dimensions of the problem of illiteracy by propaganda, so that voluntary help from organisations and individuals may be forthcoming.

Concepts

The three principal concepts that have to be taken into account in the reform of education are:

(i) Education should not merely be the teaching of existing knowledge and information, but that students be able to acquire the ability to learn, particularly self-learning, so as to keep abreast with a changing world. Therefore, education must not be just to provide a fixed sum of knowledge, but to cater to a basis and technique for acquiring knowledge. In primary education, it is acquiring mainly certain elementary skills for writing, reading, speaking and arithmetic.

(ii) Reform in education must also have as one of its basis concepts provision for adjusting to a fast changing environment. The one overriding feature to all aspects of living to-day is 'change'. Change in Indian society has been precipitated mainly by attainment of freedom, the consequent change in outlook, the necessity to pressure that freedom and to compete with the rest of the world, the rapid expansion of population

and the modern explosion of knowledge and progress in science and technology. Further, in all the forms and expressions of change, the common feature is the speed with which it accurs and positive change is development. The school system has to respond to th's changes by revision of syllabi, books and methods of teaching. These changes may not be so pronounced in the Primary school system or in educating the illiterate.

(iii) The key-note conception that goes hand in hand with the response to change is 'flexibility'. The traditional model of the public education system as it exists to-day, with its single point entry, sequential promotions full-time institutional instruction by professional teachers is too rigid and uniform throughout the State and common both to rural and urban institutions. The Unesco International Commission on the Development of Education, 1971, in its report "Learning to be", has pointed out that "for too long a period in human history, education has remained cloistered and segregated from life and work". Therefore, school time-table, courses of study, methods of instruction, examination, certification—all the aspects of school —as a matter of fact need to be changed in the direction of flexibility so as to bring the school closer to the community by providing a bridge between scholastic life and life of work and should be adjusted to the convenience of the majority, based on some directive principles.

The innovative measures introduced in other countries for reform in education extend guidelines which could be of material use in considering reforms of the education system in the State.

One of the outstanding examples of successful educat.on reform in Asian countries is found in Iran. The rural population in the State is approximately triple that of the urban. But

only 17 per cent of the village children and 10 per cent of the tribal children attended school and the drop-out rate was high. The illiteracy rate was estimated in 1962 as about 80 per cent of the population. The major educational reforms in the last 20 years took place in two stages. The first stage was introduced by the United States Technical Co-operation Mission and the second stage started with the recent movement popularly called the "White Revolution" or the "Revolution of the Shah and People of Iran". While the former period was devoted to enriching the quality of education and experimenting with new ideas, aids etc., the second concentrated on the rapid expansion of educational opportunities. In 1971, the commemoration year of the 2,500 years of Iranian Monarchy, instead of pouring money into festivities, it was decided to build 2,500 schools at an estimated cost of $ 25,000 per school. Through the enthusiastic participation and generosity of individuals and organisations 3,200 schools were built by 1972. The old Ministry of Education stood disintegrated by 1968 and its functions were taken over by several ministries and agencies. The Ministry of Education which retained the main infra-structure of the old ministry is in charge of general education (pre-school, elementary and secondary levels), literacy promotion, development of curriculum and text books etc. The Ministry of culture holds the portfolio of cultural activities, including public libraries, music schools etc. The Ministry of Science and Higher Education is responsible for colleges, scientific research and development etc. The Ministry of Co-operatives and Rural Affairs is for rural education and supervises agricultural vocational education. The Ministry of Labour and Social Works offers non-academic training in various trades. In addition to these government department there are a number of independent national agencies like the National Committee for International Literacy Programme, the Imperial Organisation for Social Welfare and the Children's Protection Society which are concerned with education in some

form or other. The Army of Knowledge and Education Corps, established in 1962, is composed of young high school graduates for teaching rural people. As a result of this widespread organisational innovation education has become a dynamic force in Iran.'

While the example of Iran shows the administrative and infra-structural organisations, that of Indonesia reveals a high degree of innovations in planning and development. Before 1965 all educational innovation was principally for improving the access to education, without sufficient emphasis on its quality. In 1969 national sample survey of education was carried out at all levels of education covering manpower, demand finances, administration and learning and teaching practices. " At the same time a method of educational planning using the systems approach was being developed and tried on a limited basis. Two Presidential decrees were issued affecting all educational planning, establishing the office of the Educational Development and giving the Minister of Education and Culture responsibility for planning and control of all educational institutions. The National Assessment of Education Project was formed to assess the country's educational situation and assemble information for formulation of a national education strategy, to evaluate the education problems and submit recommendations. As all the studies available were on limited spheres, eleven Task Forces were formed to study problems at all levels. To direct the activities a Review Board was established. After several studies the initial reports were made by the Task Forces, which were analysed and further studies were made covering the whole of Indonesia and certain depth studies. The Second level reports were then completed which were further discussed and the final third level report was made summarising all reports and pro-

viding proposals for a long term strategy of education of 15 years duration.[1]

Before venturing on making suggestions for reform of the education system it will be a useful step to view also some of the ideas and experiments already made or tried in this country also.

It was Gopal Krishna Gokhale who brought forward a Bill in the Central Legislature in 1910-12, to provide for a four-year period of compulsory education for all children. The objective he had in mind was liquidation of illiteracy in the land. He said "Even if the advantages of an elementary education be put no higher than a capacity to read and write, its universal diffusion is a matter of prime importance, for literacy, is better than illiteracy anyday, and the banishment of a whole people's illiteracy is no mean achievement.[2] The Bill, however, failed.

The Report of the Education Commission 1964-66, published in 1966, states: "On the quality and number of persons coming out of our schools and colleges will depend our success in the great enterprise of national reconstruction whose principal objective is to raise the standard of living of our people. In this context, it has become urgent.

—to re-evaluate the role of education in the total programme of national development;

—to identify the changes needed in the existing system of education if it is to play its proper role, and to prepare a programme of educational development based on them; and

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[1] Educational Innovation in Indonesia—By the office of Educational Development (BPP), Ministry of Education and Culture (Jakarta)—The UNESCO Press—1974.

[2] Elementary Innovation in India—A Promise to keep. J. P. Naik—1975

—to implement this programme with determination and vigour ".

Some of the major recommendations made by the Commission are: the neighbourhood school, work experience and part-time education for the drop-outs. The concept of the neighbourhood school is that each Primary School should be attended by all children in the neighbourhood irrespective of their social status and economic conditions. This suggestion was made with the idea of bringing together all social classes together and promoting an egalitarian and integrated society. In the existing arrangements there are the fee-charging, better schools attended by the rich and the free schools attended by the disadvantaged children. The Commission also suggested that as part of the school work and curriculum the children should learn a socially useful productive work, under conditions approximating to those found in real life situation. In the primary classes this may be in the form of simple hand work and in the senior classes in the form of a craft. Part-time education for all children on compulsory basis in the age-group of 11-14 years who have not completed the lower primary stage and who are not attending school has also been advocated. The aim is to make these children functionally literate and prevent further addition to the ranks of adult illiterates.

The State Planning Commission, Task Force Report " Towards a Learning Society, A Plan for Education, Science and Technology 1972-84 " envisages the school course of ten years' duration, increase of enrolment, provision of out-of-school education for all those who leave school before standard IV and the adult illiterates, increase of enrolment of girls to be equal to that of boys, the gradual merging of school and out-of-school education, reform of the teaching methods and learning techniques and other reforms for the secondary school and higher

education. In the simulation model for Education in Tamil Nadu, the projection of the school-age population, probable enrolment and drop-outs additional number of school buildings and teachers upto 1983 have been shown.

The system of basic education as propounded by Mahatma Gandhi is that it is built around manual labour and some socially useful productive work as against the existing system with emphasis on literacy and book-learning. It is education through a craft so that the system becomes self-supporting as the profits earned from the productive craft is ploughed back into the system. Although there was initially considerable enthusiasm for basic education, it did not make much progress, owing to various reasons. Shri C. Rajagopalachari as Chief Minister of Madras tried a modification of the system. It was proposed that at the Primary stage the school should work on a double shift system and instead of providing a craft training at school at Government expense, the children may work at home in their family craft. But these proposals were not acceptable to the people and had to be dropped. Acharya Vinoba Bhave suggested basic education in a non-formal manner and the one-hour school for the purpose. These suggestions pinpoint two aspects of education which could be accepted with benefit, namely (1) some form of craft education would be of advantage and (2) when needed the school timing should be adjusted to suit the convenience of learners. On the basis of these suggestions, the following recommendations are made.

RECOMMENDATIONS

1 — PRIMARY SCHOOL

1. Restructuring the Primary Stage

The present duration of the education system for school and college is 11+1+3, that is 11 years in school, consisting of Primary I to V, Middle VI to VIII and High School IX to XI

classes, 1 year Pre-University and 3 years for the primary degree. From the academic year 1977, the duration in school is to be 10 years with another 2 years for the Pre-University and 3 years more for degree. It is suggested that the 10 year school structure consisting of the three stages may be:

Primary School: Classes I to IV,

Middle School : Classes V to VII and

High School : Classes VIII to X

The structural pattern of 4 years for Primary school is prevalent in Kerala, Andhra Pradesh and Goa, Daman and Diu. Further, it is an accepted world norm that four years primary schooling would ensure literacy, without the possible eventuality of the individual lapsing into illiteracy. Reducing the number of primary school classes to four, would result in one class room becoming free in all the 26,977 Primary schools in the State, except perhaps in the one teacher and two teacher schools. This spare class may be converted to Pre-Primary classes for children between 3 and 5, to the extent of 50 per cent of the total number. The other 50 per cent may be utilised as special classes for children between 6 and 14 years of age who are not attending school, adjusting the daily duration of classes to the convenience of the pupils. Spare class rooms will also be available in Middle and High Schools which have the Primary sections, if this pattern is adopted for the Primary school which could be put to similar use.

2. The Pre-primary Class

The Pre-Primary or Pre-school classes would serve the dual purposes of educating the child at an early age when the receptive mental capacity is high and of improving the subsequent attendance at school. The Soviet Union, after research, has

found that the development of children with pre-school experience is superior to that of children who remain at home till school age. The social advantage to the family is that the older child will be able to bring the younger one to school. Moreover, in these days as more and more married women are involved in work due to economic difficulties and because of the opportunities arising out of increasing industrialisation, the possibility of leavnig one of the younger children at school would be of advantage to working mothers, thus ensuring the child's education. From the point of the individual child, the significant fact is that the first five or six years of life are of crucial importance in the development of the human mind. Therefore a Pre-school Course would prove to be a stimulating environment as against the inhibiting environment of a home deprived of any such facilities.

What Frederie Forocbel and his successor Maria Montesseri developed for education of Pre-school children and what is now familiarly known as the 'kindergarten' may form the basis for the development of the Pre-school classes. A curriculum as such need not form the basis of educat'on. According to French standards establ'shed as early as 1881, the activities in a Pre-school or nursery should comprise of physical exercises, games, exercises for the senses, drawing and recitation. In Holland about 82 per cent of all the four year-olds attend school. In France about 2 million (1971) children between two and six years were cared for in such institutions. In the State as on 1-8-1974 there were 55 Pre-Primary and Pre-basic schools with 5725 children and 149 teachers. But these facilities are mainly available in urban areas. On the establishment of pre-school classes as suggested above the facilities would be available on a wider scale throughout the State. The most important factor is that the conversion of the surplus classses would be without any additional expenditure to the Government.

3. Curriculum

'Curriculum' according to its latin derivative, is 'a runway'. It is, in other words, a course to reach a certain destination or an objective. So the most important purpose of a curriculum is that it should lead to an objective. Curriculum, therefore, prescribes what is to be acquired, during a specified period, for attaining the objective. In the case of Primary education, the main objectives are literacy, numeracy, elementary knowledge of the environment and personal hygiene, work experience and physical education. Hence, in order to acquire these skills and knowledge, the curriculum should be composed of various subjects, the study of which has to be structured by graded syllabi, over a specified period of time. Further, the course is run by both the pupils and the teacher—the former with the help and guidance of the latter. So the curriculum prescribed should be supplemented by directives to the teachers and guidance to the pupils. The directives to the teachers will be the teaching methods, the syllabi, teacher notes and the text books. The guidance to the pupils is given by teachers and the text books and the teaching aids. The most important principle in this teaching—learning process is that the child should not be dragged over the course by the teacher. But he should be guided to feel his way by teaching, self-learning and discovery. This of course, is not easy as the receptive capacity, motivation to study and intelligence vary among students and these factors will be usually low for students from poor families as they have no opportunities to develop these in their home environments.

The areas of school work prescribed for the Primary level by the National Council of Educational Research and Training in its publication "The curriculum for the ten-year school"—a frame-work, November, 1975 and the time allocation for each area of work as a percentage of the total school time are as follows:

	Classes I and II	Classes III, IV and V
1. First Language ..	25	25
2. Mathematics ..	10	15
3. Environmental Studies ..		
Social Studies —I ..	15	10
General Science—II ..		10
4. Work Experience and the arts ..	25	20
5. Health, education and games ..	25	20
	100	100

A minimum of 240 working days in a year, out of which 220 days are for instruction and 20 days for school camps and instructional time of 3 to 4 hours per day in the lower primary and not less than 5 hours per day in the upper primary are prescribed. But in view of the fact that the retention rate in classes I to V fall progressively in the formal education system, an attempt has to be made to provide as much literacy and numeracy education as possible, so that with the pre-school training proposed and the education in the first two classes of the Pimary school, the children may gain a working knowledge of a language (mother tongue) and numbers, which may prevent their lapsing into illiteracy later. Hence the allotment of time for study in Primary schools given above may be revised as follows:

	Classes I and II	Classes III and IV
1. First Language ..	25	30
2. Mathematics ..	20	20
3. Environment Studies ..		
Social Science — I ..	15	10
General Science—II ..		10
4. Work experience and the arts ..	20	15
5. Health, education and games ..	20	15
	100	100

The language taught which will be the medium of instruction should be the mother tongue. But the beginning of the study of a second language, preferably English, should be laid in classes III and IV by teaching to read and write the alphabet, the pupils name and some common words such as cat, dog, bee and pronouns, a few verbs in everyday use etc. which would, lay the foundation for the fuller study in the Middle and High Schools. This recommendation is made on the basis of the fact that for a large number of children, the Primary school will be the only course of study they will ever have. So the knowledge of the rudiments of a second language will stand them in good stead. Learning to speak should be the first step in language education in classes I and II. The children should listen to stories and other narrations. They should be encouraged to recite, sing group songs and in story telling. The prior training in the Pre-school would be useful in these exercises. Curriculum, broken up into syllabi for each subject, has been prescribed by the Department of Education and is given in Appendix, I, which

is for five classes. These may be adjusted to be taught in four classes on the basis of restructuring the Primary stage to four years. The curriculum may be accepted as the core curriculum. But the teaching should be varied to suit the conditions and environments of each area, for which the teachers should have the freedom, ensuring the flexibility required. It would also be beneficial to develop teacher guides and notes in each subject which could be done at the Teacher Training Colleges. It is, however, found that there are variations in the curriculum of the Primary stage of the S.S.L.C. matriculation and Higher Secondary Schools. The curriculum of a Matriculation School at the Primary stage is at Appendix 2. There appears to be room for up-grading the syllabi of the Primary stage of the S.S.L.C. Schools.

4. Physical Education and Games

Physical education must be made a compulsory subject in all Primary schools, with the exercises streamlined according to the age group of pupils. The exercises should not only contribute to physical fitness, but must be designed for developing alertness and a sense of discipline in the students. Wrapped up in a soldier's drill and physical training is the central motive of making him alert, obey commands and physically fit. Similar exercises could be developed with stress not only on the physical aspect but the psychological development of the child for discipline, alertness and cooperation. Equipments and facilities for the usual games like football, badminton etc. are available in the fee-collecting private schools and only seldom provided in Panchayat and Government Primary Schools, probably because of the cost involved. Less costly playing materials like a few rubber balls for the boys and skipping ropes for the girls could be provided for each school with very little cost. Playing organised games with prescribed rules teaches the pupils how to co-operate with their fellows and encourages competitive spirit.

5. School Mothers

If the school is not to be a mere place where a few lessons only are taught, then the child has to be guided in the development of his personality. Personal cleanliness and hygiene is one thing in which the child has to be guided. For this purpose each school should have one or two lady teachers on the staff to guide the children, who may be called School Mothers. From the poorer sections of a locality, a number of children, particularly in the lower primary, come to school with buttons missing from their shirts/blouses and others with their noses running and sometimes without washing. These children must be helped to stitch buttons on to their dress, wash their faces and generally become personally clean. The School Mothers should generally supervise each class in this respect. Such a supervision, in course of time, would help the school to have personally clean pupils and neat premises.

6. School Building

Financial constraints prevent the building of artistically or ideally designed schools, particularly in rural areas. Therefore, for the present and immediate future, probably, the school buildings and equipments may fall short of the ideal requirements of space and structure. But it could be ensured that two plots of land, adjoining the school or in the near vicinity, are provided one for games and physical exercise and the other as a garden where the children could learn to cultivate flowering plants or vegetables.

There are also two empirical considerations which arise in the matter of providing school buildings. Firstly, in the face of such a large number of drop-outs, is it necessary to provide buildings on the basis of a 100 per cent enrolment in the primary classes or for every 300 persons of the population? Secondly,

if the enrolment and retention can be ensured do the existing Midde School facilities ensure the absorption of the entire Primary School? Statistical data, as on 1-8-1973, show that while there are 7,69,608 pupils in class V, the total strength of class VI is only 5,81,883 in the State.

Further, in order to have a pre-view of the population data and economic conditions, it would be worthwhile to hold a survey of the locality in which a new school is to be set up. This would also help to ascertain the needs of the area, the probable suitable timing and duration of the school terms, preserving some uniformity in the number of working days with other schools and the adjustment of the syllabi in relation to the environment and conditions, based on the core curriculum.

7. Timing and duration of school sessions

Full-time institutional instruction by professional full-time teachers for a fixed duration in an year has been throughout the pattern of the education system at all levels. It has since been realised that this pattern of education does not always suit the convenience of the economically poor sections of the society as the children are often withdrawn from school to work at home or on the family farm or at the craft and consequently do not benefit by the system. No experiments in changing the school timing or duration to meet the requirements and convenience of the population of any area have been tried in the State. It is evident that the entire system cannot be changed. But in pre-dominantly agricultural areas, as an experimental basis the timing and duration of the school sessions could be changed to meet the seasonal activities in agriculture of planting harvesting etc. to see wether such changes would materially improve attendance in schools. Suggestions have been made in items (1) and (2) of the recommendations in this regard.

8. Text Books and Supplementary Reading Material

There is now a felt need—of or good text books and supplementary reading materials in Tamil for children, particularly noticeable in the lower limits of reading.

In Australia, the children's Book Council of Victoria, have published books for the children, under various age-groups. Some of the books for the under seven age-group, are:

1. "Wish and the Magic Nut" by Barward, Peggy and John Sands, illustrated by Sheila Hawkins, introduces some of the best known Australian animals and their habits.

2. "Snugglepot and cuddle Pie" by Gibbs, May, Angus, and Robertson, is woven round the best known trees and flowers of the Australian bush.

3. "Pine Farm" by Mellor, Kathleen and Georgian House illustrated by Harold Freedman, is written with an understanding of young children's interest in the world around us.

Simliarly for the children of the age-group 7 to 11 years, there are, "Bush Holiday" by Collins and Dale and "Bush Voyage" by Heineman which pictures the life on a farm for an English lad and his young Australian friend; "The Magic Pudding" by Lindsay, Norman, Angus and Robertson; "Adventure at Gull's Point" by Nichloson, Joyce and Epworth Fend" The Story of Karawingi the Emu" by Rees, Leslie and John Sands, illustrated stories of Australian birds and animals. There are also books for the 11 to 14 and over 14 years age-groups.

The world famous Grimmes Fairy Tales are considered as some of the best children's books. There are also a number of English books for children by Enid Blython. Some of the illustrated comics in the State are the stories of Tarzan of the Apes. The periodical "Chandamama" also publishes a large

number of stories. These examples are cited so that supplementary reading books could be designed on these models, so that the imagination spirit of adventure sense of honesty, etc. of the children may be awakened, in addition to the knowledge that may be gathered and the incidental expansion of vocabulary. The great epics of India—Mahabharatha and Ramayana—contain several stories and episodes which can be written out in simple language for the children. Another rich source of stories is the folk-lore of various regions, which would form interesting reading.

School text books in the state are written by the Text Books Committee appointed by the Department of Education. The State Institute of Education which has now become the State Council of Education Research and Training may take up this work in cooperation with the Text Books Committee.

9. Examinations and Evaluation

The present prevailing uniform system of promotions on the basis of marks obtained at term, examinations, laying emphasis on the final annual examination, need not be followed in the first two years of the primary school. All children must be allowed to go on to the second from the first and to the third from the second class. But it should be ensured that they reach a certain standard in the acquisition of knowledge and skill. A certain set of graded lessons may be drawn up for the first two years, each set for the duration of a term as now exists in the academic year. If some children fail to acquire the standard in a term, they should be persuaded to learn during the subsequent holidays. Oral tests could be held once a week to ascertain the progress made by the pupils. The primers or text-books for the first two years may be combined ones for language, numbers and other subjects and may be in three parts one for each term, for the first two years. The system of exami-

nation or some regular tests may be employed in the third and fourth classes. The present day evaluation in an education system is restricted to testing the knowledge and skill of the learners. But what is equally, if not more important is the evaluation of the teaching methods and materials. This process could be carried out by the teachers and headmaster of a school at the end of a year, along with the District Education Office or the Assistant Educational Officer and the syllabi, curriculum and teaching methods revised if necessary. This would be the built-in mechanism for revisions at the school level. The reports and suggestions of various schools could be considered and consolidated at the Directorate of School Education. A total abolition of tests and examinations is not considered as a measure which would improve education. There is room for change from the present type of examinations. The main objectives of examinations should be to ascertain whether knowledge has been acquired, to encourage individual thinking and to apply the knowledge for solving problems of everyday life.

10. Enrolment and continuance in School

The enrolment figures (percentages) being satisfactory in Primary Schools, the most disquieting feature of our education system, as has already been seen, is that of students discontinuing from schools at various stages. The two major factors that contribute to this situation are poverty and the consequent necessity for the child to work and earn early in life, to help the parents and supplement the family income and the inadequacies of the school system. So the first consideration that arises is the possibility of providing work for those who need it through the school. A poultry farm on a small scale or a small vegetable farm attached to the school, where the children could work in turn, part of the time and share the profits would meet the need. In Cuba, each secondary school in the countryside of 500 students, mostly from the urban areas, is assigned

500 hectares of land for cultivation, with a group of qualified workers. The children spend three hours per day on production work, suited to their age, sex and skill (half the children in the forenoon and the other half in the afternoon). Schools are run on a weekly boarding system. But such a scheme would imply large investments on a widespread scale and may not be possible in the State because of financial constraints and because of the social and political traditions. The children can, however, be encouraged to keep a few chicken or a bee-hive at home, the income from which would help the family. The possibility of school children in agricultural operations like weeding, which they can manage, on farms close to the school, at selected hours, could be explored. It is, however, not known whether the cultivators would accept such a proposal. The adjustment of the school hours to suit the convenience of the people of the locality, where the pattern of living is one in which the children also help in the family occupation, should be definitely tried and for this the rules of the school department may be relaxed so that the Headmaster of a school would have the power to make the alterations. Of the second factor, regarding the inadequacies of the school system several recommendations for change have been made herein. The possibility of extension of the midday meal system to rural schools has not yet been explored.

In order to record and pursue the career of each child an enrolment card should be maintained for each. Therein progress of the children should be entered. As and when a child discontinues the class teacher should make enquiries and through the Headmaster ascertain the reasons so that the people can be persuaded to return or made to join the non-formal classes. The enrolment card would also enable the compiling of statistical data.

11. Parent-teacher Associations and Community participation

It is essential that the school should keep in touch with the local community and vice versa and for this purpose a Parent-Teacher Association would be the ideal vehicle. Such an organisation should meet at least once in 6 months to discuss problems of mutual interest. Such a liaison arrangement would probably help to reduce drop-outs and stagnation and would help to carry out propaganda for literacy. For single teacher and two teacher schools, there could be associations for two or three schools in any locality. The needs of the school would also be known to the community and the more affluent in the society could render financial assistance to the school for items like library, uniforms for the poor children etc.

In the State there are several Parent-Teacher Associations which have contributed to the welfare of the schools concerned, as has been shown in Chapter II. These could be revitalised to form liaison units for progress in education.

12. A Planning Body

In planning reforms in education a totality of goals should be aimed at for which the activities of the entire education system, consisting of all the established levels, from Pre-Primary to Post-graduate stages, has to be reviewed and periodically evaluated and co-ordinated so as to aim and achieve certain desired ends consistent with the needs of the society and the State. For this purpose a State Education Council may be established, consisting of the Vice-Chancellors of all the Universities in the State, the Directors of the Department of Education a member from the State Academy of Sciences and the Secretary to the Education Department. The Council will lay down the major policies, plan the education processes objectives at each level and the structure of the system, leaving the existing Univer-

silies and Departments to implement the plans and administer them, with variations wherever necessary. There should be an Education statistics and Research cell in each of the universities and the school education department. At present there is a statistical unit in the School Education Department which compiles valuable data. The data compiled by these cells would provide material for planning by the council and revision. The council could appoint small committees for prescribing curriculum, writing books, teacher guides etc. The entire system of education could be reviewed every year for introducing changes, if any, required. The Council should have liaison with industrial, agricultural and Government organisations to ascertain their needs of manpower so as to re-orient education courses to meet these demands. So far as Primary education is concerned the major tasks for the council would be to emphasise its objectives and to plan ways and means of reducing the wastage due to drop-outs and stagnation and thus make the present established system more effective. The recommendations made herein may be taken into consideration.

II Adult Literacy

Probably, the first step in designing a programme for educating the illiterate is to specify and realize the principal disadvantages and major disabilities suffered by an illiterate. Although widely known they are reiterated below:

Not in a position to express meaningfully his thoughts and feelings which in itself is a humiliating factor which lend to hamper the development of the personality of the individual and in addition enable to communicate purposefully with others.

Not able to have a proper knowledge of his surroundings, country or the world at large, his rights and civic responsibilities

In a fast developing and changing technological civilization, particularly in a democratic set-up where competition exists, the illiterate finds himself often relegated to the lowest levels of economic activity and living and finds it hard to better his prospects, particularly as his bargaining capacity will be at a low level.

Illiteracy introduces in society a major inequality in addition to the inequalities of income and position, and

The education of children is also indirectly affected by illiteracy of parents as they do not understand the need and advantages of education and are, moreover, unable to guide them.

These constitute the major disabilities of an illiterate from an individual point of view. The society and the nation would also suffer from disadvantages due to a large illiterate population. The formation and maintenance of democratic institutions and government is not easily feasible with individuals who do not understand their rights as citizens and are unable to exercise their privileges. Social development implies awareness of social obligations and civic responsibilities and a rational attitude born and developed from this awareness, which cannot be easily expected from illiterates. Moreover, of the two major factors in economic development, namely the human factor and the non-human factor, the former is the major partner. Economic development requires knowledge and readiness to accept and practise new methods in industrial production, cultivation and commercial activities and also a desire for better living. To reduce the disadvantages an illiterate suffers into more practical terms from the angle of the individual's every day life, it may be said that an illiterate is unable to write a postcard or fill in a form, read a letter or newspaper, take part intelligently in a civic or legislative voting, bargain for better terms in employment or trade as a literate may. From a psychological point of

view an illiterate may not respond to change as they may have a traditional accepted way of life, sometimes coupled with social and religious superstitions. These disadvantages also indicate the reasons for the need for aiming at a high literate population in a developing country as literacy is essential for improving the quality of society.

However, in reiterating the disabilities of an illiterate, it has to be remembered that an illiterate has some innate intelligence and aptitude and would have developed some skills in the employment he is involved in and is in many cases the head of a household running a family, able to transact the ordinary transactions in daily life and cannot be considered as a fully ignorant person.

The next set of facts to be taken into consideration, in designing a programme for adult literacy, is probably composed of constraints and they are: (i) The total number of illiterates in the State is so large that the organisations for literacy for them, on the basis and lines of the established school system, will not be feasible for many reasons. So some alternate system has to be thought of. (ii) This leads to the fact that the government or local authority handling the programme single handed would not be possible, not only from the administrative point of view but also from the financial implications. Therefore, the association of voluntary agencies and non-governmental establishments would be necessary. (iii) Adult illiterates are mature persons who would have some formed opinions and would not be interested in mere literacy as he is already using the language in his daily life. Hence, some form of motivation would be necessary for the illiterate and the method of providing the education will have to be one appealing and useful to him. The methods used in the education of children may prove ineffective. (iv) The problem of living is so acute that

the illiterate would find it hard to spare time for anything else. (v) The needs and abilities of individuals differ and may vary from group to group.

" The crisis in education—and the particular symptom of it, mass illiteracy—has outgrown the pre-occupation of educational planners to become a matter of public concern throughout the world. "* Stimulated by this crisis of illiteracy and its retarding influence on socio-economic progress and political advancement, governments, voluntary agencies and even individuals in many countries of the world have been taking action to educate illterates. A wide variety of strategies, methodologies and varying types of establishments and organisations in the battle against illiteracy provide not only interesting reading, but indicate guidelines which could be followed with benefit. It has been realised and accepted that illiteracy is much more an educational problem. The relationship of literacy to various aspects of human rights and dignity, its role as a productive factor for development in industry, commerce and agriculture and the man power required and its significance in social and political progress have become the concern of educationists, economists and planners. In 1965, a World Congress of the Ministers of Education on the Eradication of Illiteracy was held in Teheran at which eighty-eight countries were represented and it addressed " a solemn and urgent appeal to international and regional bodies concerned with development of education, to non-governmental organisations, to religious, social and cultural institutions, to educators, scientists and scholars, to economic and trade union leaders and to all men of goodwill to do everything in their power to arouse public opinion with a view to intensifying and accelerating the worldwide attack on illiteracy ". The International Literacy Day had its origin in the Congress of Teheran and is celebrated

* Literacy 1967-1969 Progress achieved in literacy throughout the world. UNESCO—1970.

each year on the 8th of September. The International Year for Human Rights, 1968, linked literacy with various aspects of human rights. A seminar was held by the World Confederation of Teaching Profession in Cuenca, Ecuador, in May, 1968, on the co-operation of teachers' organisations in literacy programmes. In February, 1969, a Round Table of Bankers, Economists and Financiers was arranged by UNESCO at which literacy as an economic investment was discussed. These instances picture the world-wide interest shown in the liquidation of illiteracy.

In 1964, as a result of a series of studies devoted by UNESCO to the problem of literacy, the UNESCO general conference at its thirteenth session decided to initiate in 1966 a five-year, "Experimental World Literacy Programme" with the main objective of testing and demonstrating the social returns of literacy and more generally to study the mutual relations and influences which exist between literacy training and development. The world congress of Ministers of Education on the Eradication of Illiteracy subsequently met in Teheran in 1966 to consider, in particular, "the manner in which (national) plans for the eradication of illiteracy can more effectively contribute to social and economic progress and to the objectives of the United Nations Development Decade". The conference in its conclusions stated "Rather than an end in itself, (functional) literacy should be regarded as a way preparing man for social, civic and economic role that goes far beyond the limits of rudimentary literacy training consisting merely in the teaching of reading and writing. The very process of learning to read and write should be made an opportunity for acquiring information that can immediately be used to improve living standards: . . ." Based on these decisions UNESCO has been engaged in conducting a series of pilot projects and micro-experiments in literacy campaigns in a score

of countries, Algeria, Ecuador, Ethiopia, Guinea, India, Iran, Madagascar, Mali, Sudan, Syria and Tanzania, with financial assistance from UNDP. These projects were mostly completed in 1973, but the activities have been extended and continued. Two of these projects are detailed below.

Algeria

In Algeria, where there were 6 million illiterates (75 per cent of the population) the pilot project was under the Ministry or Primary and Secondary Education, with the National Literacy centre as the organising agency with the full responsibility for the operational activities. For the first five years, functional literacy was tried in three districts: (a) the autonomous agricultural region of Staoueli (b) the industrial region of Arzew and (c) the industrial and agricultural regions of Annaba. The objective of the functional literacy programme in Algeria was to teach not only reading writing and arithmetic *per se* but to integrate them with general professional and technical training of industrial and agricultural workers and their families to improve productivity and standards of living. During the first 5 years, 65 functional literacy groups with 1200 participants in the agricultural sector and 58 groups with about 1500 workers in the industrial sector operated. In the second phase, 1972, the enrolment increased to 26,000 and 6,000 in the agricultural and industrial sectors respectively, further expanding to 39,912 and 13954 by September 1973. The total cost per participant was $ 71 ($60, if research costs are deducted). Financial assistance was accorded by UNDP. The later plan eliminated the emphasis on geographic areas, placed emphasis on certain sectors and a decentralization of operations was affected. The council of Ministers on 13th May, 1971 decreed that each public institution must have a permanent structure for literacy instruction and the recruitment and pay of literacy teachers should be in local hands. The Assemblee Populaire Communale is responsible at the local level for motivating local groups to undertake

functional literacy. The majority of literacy teachers came from the same background as the learners, the instructors being usually supervisors or foremen in the industrial and agricultural sectors. Literacy teaching was through the presentation of a key sentence followed by an analysis of its parts. The teaching material included instruction sheets for teachers and literacy materials for the participants.

Tanzania

The Government of the United Republic of Tanzania, following two UNESCO missions in 1965, decided to adopt a selective and intensive approach to literacy, employing the concept of functional literacy and signed an initial plan of operation in 1969 with UNESCO as the executing agency and the Ministry of Regional Administration and Rural Development as the co-operating agency, later changed to the Ministry of Education with its Directorate of Adult Education. The ideological background for the literacy programme was contained in President, J. K. Neyrere's treatises outlining his course for Tanzanian development (1967) which stressed a strategy of gradual development towards self-sufficiency in skilled man power and food by the up-grading of rural productivity. The development plans, infused with a uniquely Tanzanian socialist ideology (the spirit of Ugamaa), called for the expansion of primary and adult education, among other measures. Another element of Tanzanian development policy was to encourage local self-reliance to solve local problems by local initiative and co-operation. Hence literacy was to be implemented in response to local popular demand as people became aware of its functional importance. The initial programme was on a pilot scale in one division each of four regions on the southern shores of Lake Victoria. The Illiteracy rates in the pilot regions were 60 per cent for adult males and 90 per cent for adult females. The original plan was to reduce it to 25 per cent which required 200,000 persons

to be made literates, but later this figure was reduced to 75,000. In 1971 the programme was enlarged to spread to 23 divisions in the four regions. As in 1975 there were 2·5 million adults enrolled in the functional literacy classes.

The EWLP programme carried out in India is discussed later in this Chapter

Before considering the population sectors concerned in a literacy programme for Tamil Nadu, the geographic areas to be specially catered to initially so as to focus the attack on high illiteracy centres and the possible forms and strategy for literacy —establishments, it will be of practical use to review also a few successful literacy programmes and methods of literacy teaching in our country which have achieved some results.

The Kerala Grandhasala Sangam

In Kerala, adult literacy work on a large scale was taken up by the Kerala Grandhasala Sangam, which is a pioneering association of rural libraries with a network of 4,000 libraries. With a sanction from the Government of India, they started two pilot literacy projects covering 20 literacy centres in two districts. In all these areas initially "literacy Jathas"—a march of workers on foot highlighting the need for literacy and inviting the illiterates to attend the classes at the centres—were organised. Literacy workers were volunteers from Library workers, teachers, farmers, fishermen and unemployed educated for whom orientation short term courses were held introducing them to the psychological and pedagogical aspects of teaching adult illiterates and how to motivate the learners and contain their interest. 40 to 50 illiterates in the age-group of 15 to 40 years were enrolled in each literacy centre. The convenience of the learners was ascertained for fixing days and time for the classes and the duration was set as 150 hours at 2 hours per day

for 3 days in a week. Easy to learn books on agriculture, fisheries, health, social studies and arithmetic were prepared. In the first endeavour, farmers and agricultural labourers outnumbered fishermen and day labourers at the centres. Evaluation of the work was carried out by a team which visited the literacy centres. In the next stage, 40 centres with 10 exclusively for women were selected with emphasis on the age-group 15-35 years in enrolment. As 150 hours were found inadequate it was decided to have 300 hours from the second project. A thousand-word vocabulary was prescribed in the primers. Instead of teaching alphabets initially, key sentences from discussions in the class about ideas closely related to life were taken and the composing words pointed out and then in turn the alphabets. The second primer contains another 500 words with topics from agriculture, fisheries etc. Film shows, special lectures and demonstrations by experts formed special feature of teaching. Evaluation was for reading speed, writing speed and comprehension. The sangam has completed 5 projects covering 3,200 persons in 80 centres.

The Farmers Training and Functional Literacy Projects

The Ministries of Agriculture, Education and Information and Broadcasting of the Government of India have implemented this inner-ministerial project in selected High Yielding Varieties districts in the country. "The project is based on the concept that there is a direct correlation between physical and human ingredients in agriculture, between inputs and the upgrading of human resources. It is an integrated, multi-faceted approach to the "Green Revolution; the main goal of the scheme being to support and strengthen the basic national objectives: self-sufficiency in food, increase in crop production, and growth of agricultural productivity. It is an attempt—and the first one on such a scale—to put educational activities directly in relation

to one of the major development purposes." * The three components of the project, which were tried in about 100 districts are (1) training of the farmers through Farmers Training Centres (2) Farm Broadcasting over the All India Radio strengthened by discussions and (3) Functional Literacy Courses implemented hrough 60 groups in each District. Evaluation of the project showed that the Farmers Training and Functional Literacy project is sound but was not unmitigated success. In spite of its deficiencies, the project is still the largest all-India adult education programme. The Government of India, Fifth Five Year plan envisages to extend the functional component of the project to cover a total of 175 districts for 1·3 million farmers and extend the project to areas other than the HYV programmes.

People's Education Programme—Functional Literacy

Dr. G. Ramachandran, former chairman of the Khadi and Village Industries Commission, on his visits to over 1,000 rural textile centres in the country found that the 34,000 workers were either illiterates or semi-literates. He thought of educating them through functional literacy method at their workspots. This was discussed at the Commission's monthly meeting and the "People's Education Programme" came into existence. The objectives of the programme was to enable the illiterate workers, mostly women, to read, write and compute, to give functional literacy to the semi-literates, to train the literates in higher technical and vocational training and to enable the workers to understand their trade and provide citizenship training. As the six spindle metallic charka was their tool, it became their tool for learning also. Tamil Nadu Gandhi Smarak Nidhi, Madurai, prepared four books with the help of the Sarvodaya workers engaged in the spinning activity as primers for the literacy campaign. The first book introduces the charka to the learners with a picture, followed by pictures of

* Adult Education and National Development – concepts and practices in India. Directorate of Adult Education. Ministry of Education and Social Welfare. Government of India, 1974.

its parts and names. Small sentences are then introduced. The second book tells of the local institutions and the role of the Khadi and Village Industries Commission and the work of Gandhiji in uplift and nation-building work. The third book points out to the spinners the need for maintaining their tool of production, leading to the need for maintenance of good health. The fourth book enters the wider field of world citizenship. For the literacy classes, the spinners are divided into groups having illiterates, semi-literates and an S.S.L.C. or educated person in each group. The educationally fortunate ones help the others during their leisure time or in the evenings at the centre. The Manager also holds classes every evening at the centre and guest lecturers give talks every fortnight about the organisation in which they work, history, geography, citizenship, Gandhian teachings etc. The programme covers the 150 Rural Textile centres in Tamil Nadu employing about 5,250 women workers.

Gram Shikshan Mohim--Maharashtra

The literacy campaign popularly known as "Gram Shikshan Mohim" in Marathi means a campaign for educating the villages. The village is taken as the unit for eradication of illiteracy and the motivation is based on a mass appeal to the villages and no effort is made to impose literacy on them. In 1959-60, in Satara District of Maharashtra, the district unit of the Education Department with the assistance of the primary teachers, organised a number of propaganda meets with the idea of taking the social education movement to the masses. The response was far above expectation. It was the villagers who organised the literacy classes and provided accommodation and equipments. The success of the experiment led to the inclusion of the scheme in the Third Five Year Plan and the State wide campaign was launched on 17th April, 1961. The implementation of the scheme has been transferred to the Zilla Parishads.

But the responsibility for printing and supplying of literature for adult literacy rests with the Government and is helped by the State Social Education Committee in this work. The Parishad Education Officer assisted by his deputies is in charge of the Mohim. The Gram Sikshan Executive Committee with the Sarpanch as the Chairman and the local headmaster as the Secretary does all the preliminary work of survey, finding of instructors etc. But the village has to make the decision to participate in the movement. Regarding the actual conduct of the literacy classes, it begins with a prayer, then the day's important news is told, followed by the revision of the previous lesson and the new lesson. Stories from Ramayana or Mahabharata or the lives of great men are told. There is also community singing. The duration of the classes is three to four months. Emphasis is laid on developing ability to read simple sentences connected with daily life. The learner is also taught to count, read and write numbers up to 100 and simple arithmetic to help daily transactions. Knowledge about health, hygiene and sanitation are held of primary importance. The working of the movement through the Zilla Parishads and the insistence of the village taking the decision to join the movement has shown that best results in literacy campaigns are obtained when there is co-operation between officials and the people or non-officials.

Tamil Nadu—Adult Literacy and non-formal education

In the sphere of adult literacy and non-formal education Tamil Nadu has a progressive record. On the request of the State Government, the Tamil Nadu Board of Continuing Education undertook a survey of the non-formal education programmes in the State through a committee appointed by it. The report "Towards a Functional Learning Society", published in September, 1975, covers 134 ongoing schemes in Tamil Nadu involving 5·68 lakhs persons in non-formal education consisting

of not only adult literacy and functional literacy but also non-formal education for the literates. The scheme of adult education by the Department of School Education, as introduced in 1954-55 consisted of a course spread out for a period of three years with admissions restricted to the age group of 8 to 18 years, has now ten centres in the four districts, Coimbatore, Dharmapuri, South Arcot and Tiruchirapalli. An elementary grade teacher, with adult literacy training, is paid Rs. 12/- per month and a secondary grade teacher, with special training, Rs. 20/- per month. The report on "Non-Formal Education in Tamil Nadu" by the Director of School Education in 1976 shows 630 centres in 13 educational districts under the "Farmers, Functional Literacy Scheme". This scheme sponsored by the Central Government and covered with cent per cent subsidy has been in operation since 1968-69. The programme is conducted in districts where high yielding varieties are cultivated. The course is of one year's duration in two phases of six months each with each centre training 30 farm adults. Instructors are primary school teachers, resident in the locality and have an agricultural background, and they are given training in functional literacy methods for seven days initially and a re-orientation course for five days at the end of the first six months. They are paid an honorarium of Rs.150/- which has since been raised to Rs. 240/- for each six months phase. This programme is a joint effort of the departments of Education, Social Welfare, Agriculture and Information and Public Relations. A District Project Officer is appointed for every district where the Farmer's Education and Functional Literacy Programmes are in operation. In order to reduce the extent of illiteracy in the State, a crash programme was launched in August, 1975, in Salem District with 1,000 centres with 3 courses of 4 months duration each. By this scheme 90,000 illiterates are expected to be turned literates. The proposed scheme

for non-formal education for youths in the age group of 15 to 25 years is to be implemented in the two districts of Tiruchirapalli and Coimbatore, with 100 centres in each district in the following centres:

Tiruchirapalli		*Coimbatore*	
1. Ariyalur	P.U.	1. Sarkarsamakulam	P.U.
2. Sendurai	P.U.	2. Perur	P.U.
3. Thirumanur	P.U.	3. Madukkarai	P.U.
4. Alathur	P.U.	4. Perianaickenpalayam	P.U.
5. Veppur	P.U.	5. Thondamuthur	P.U.

The course will be for 8 months for 5 or 6 days per week and 2 hours per day for 30 to 50 pupils per centre. The teachers for the centres will be experienced working and retired B.T. secondary grade teachers. The Secretary of the Board of Continuing Education, Sister McLevy, has started a centre for non-formal education at St. Thomas Convent, Mylapore, for the school drop-outs. The report of the committee of the Board of Continuing Education has listed a large number of non-governmental organisations engaged in adult and functional literacy programmes. A list is given in the Appendix. These include educational institutions, social, religious and welfare organisations, like the American College, Madurai, the State Social Welfare Board, the Stree Seva Mandir, Y.M.C.A., the Navajeevam centres at Udumalpet and Karur. The programmes include pre-school, primary education, literacy, work-oriented literacy, family planning and other non-formal education. From the list it is evident that there are a large number of non-governmental organisations in the field of literacy and these could be usefully encouraged to continue the work in a mass adult literacy programme. But

their work will have to be co-ordinated and brought into a State programme, without interfering in the internal administration and organisation.

Methods of Literacy Teaching

Several methods in use in literacy teaching have been described by T. A. Koshy in the chapter on "Methods of Literacy Teaching" in the book "*Adult Education in India—A book of Readings*", edited by Anil Bordia, J. R. Kidd and J. A. Draper, 1973. Some of the methods are 'The Alphabetic Method', 'Alphabetic Picture Association Method', 'The Awasthi Method' and the 'Picture-Word-card Method'.

In the alphabetic method which is the traditional method, the most common letters or those which can be easily written or those which can be grouped on the basis of similarity of their shapes are selected and taught by sheer drill. The Mysore State Adult Education Council for teaching Kannada groups six letters, having similar structure, on each page of "the Primer" on the presumption that it is easier for students to write letters as a group. There are pictures on each page to help recognise the words. The Primer which can be completed in 12 hours helps the student to recognise 30 characters of the alphabet. In Reader II the vowels, signs and conjunct consonants are introduced and is intended to be finished in 63 hours at the end of which the learner is expected to know all the letters of the alphabet and consequently to read anything in simple language. Reader III which could be completed in 75 hours contains stories, narratives and dialogues on interesting topics. The Alphabetic-Picture-Association Method, known as the "Laubach" method after its author Dr. Frank C. Laubach, is based on the theory that the students are able to recall to memory the shape of a letter if it resembles the shape of an object whose name begins with the same letter. The great disadvantage of

the method is that such resemblances of letters to objects cannot be found for all letters. There are suitably graded Readers I to VI as follow up of the Primer. Such Charts, Primers and Readers have been designed in Hindi, Tamil, Kannada, Oriya and Bengali. In the Awasthi Method, designed by the late Shri B. D. Awasthi of Lucknow, the alphabets, their different strokes and the words and sentences made out of them are serially numbered and are to be taught in the definite order designed by the author. By this method, an adult can learn all the Hindi alphabets in 20 days and will also be able to read 363 words and 200 sentences formed by them. In the picture-Word-Card Method used by the Bombay city Social Education Committee for Marathi, there are 20 cards, with 4 double coloured pictures of 4 objects with their names below on the left hand side. On the right hand side the words on the left hand side are again printed followed by a list of words made by permutation and combination of the letters of these words. At one end of the card there are two sentences coined out of the words used. At the bottom of the card all the letters introduced are printed. Bi-syllabic words are used up to lesson 3. The vowel signs begin from lesson 5. The learners are supposed to finish the set of cards in 20 days.

Besides these methods, some other methods have also been evolved—the Integrated Literacy Method developed by Mrs. Helen Butt of Nilokheri, the Raisam Method of teaching the three R's evolved by Shri Venkat Rao Raisam which was tried in Himachal Pradesh and Delhi and the Naya Savera Primer and charts of Literacy House, Lucknow.

A new method is suggested for Tamil Literacy teaching—"The Words Building Method". The basic thoughts that prompted the method are firstly that a thorough knowledge of the alphabet is the basic and absolute necessity for any form of lasting literacy,

secondly that instead of restricting the learners to words and ideas built around their vocations it is better to enable them to acquire the skill to read and write so that they can turn to whatever they desire to read and write and thirdly that the learners, at least a number of them, will have interest of their own, outside their occupations, like cinema, foot ball, races etc. about which they would be anxious to read. What makes the method easy is that in Tamil (unlike English) the spelling of words is according to their pronunciation, as the language is phonetic. Further, although they cannot read and write, illiterates would know quite a number of words which would help in the method.

The first step in this method in learning/teaching is to identify the letters by sight, which would enable the learners to picture the letters required for the words they already know. For this purpose, two types of inexpensive equipments are required. To teach the learners to identify the letters, there should be two large charts with letters to be displayed in the class. The first one to contain the Tamil vowels and the second one the consonants with their inflections and word endings.

Chart I

அ	ஆ	இ	ஈ
உ	ஊ	எ	ஏ
-	-	-	-

Chart II

க	கா	கி	கீ	கு	கூ	கெ	கே	கை	கொ	கோ	கௌ	
ப	பா	பி	பீ	பு	பூ	பெ	பே	பை	பொ	போ	பௌ	
-	-	-	-	-	-	-	-	-	-	-	-	-

The pronunciation of each letter and identification should be taught by sheer drill with the help of the charts—initially the vowels and the base consonants and then their inflections. This could be followed up by citing a few two/three letter words and identifying the letters for the words on the charts.

In order to help the learners in this process of identifying and pronuncing letters they should be given a plastic packet or small box containing an assorted set of letters or the entire letters of the alphabet printed on small card board squares as in the English word-bulding set. This would be the second equipment required which would replace the alphabetic primer and can be retained in the class.

Box *Letters* *Word*

The learners could be asked to build words with the letters in the packet/box. When the learners are able to identify most of the letters, writing can be started, beginning with the very simple letters like ப, ட, ம, வ etc. and then moving on to more complicated ones and the inflections. It can also be explained to the students that the lines and strokes which form the inflections are similar in all consonants with slight variations in some letters.

கி கா வி வா பி பா

This basic knowledge of the alphabets, can be further strengthened by giving them small printed charts of vowels and consonants to be taken home. Graded primers can be used for further progress, which would contain sentences, stories, dialogues and narratives. The model of the primers may be on similar lines as used by the Khadi and Village Industries Commission described earlier.

The experiments, some of them successful, in adult literacy programmes, made abroad and in other parts of the country and the lessons and experiences gained therefrom, give indications of the type of coverage, form, methods and problems or

constraints connected with literacy programmes. In coverage, an adult literacy programme can start with a nation/state wide coverage or may initially be on a restricted and selected basis on a pilot scale. An ambitious programme of a nation or state wide campaign, where the territory is wide and population large, is, however, bound to create problems in implementing and a pilot project seems likely to pay off better, which can then be extended. Selected coverage may be for any specific geographic area, where it may be badly required and would pay dividends or it may be linked to any national development project—industrial or agricultural—where literacy may lead to better productivity and economic advancement, as in the H.Y.V. programmes or may be part of a National Plan for total development. The present widely accepted form for adult literacy education is what is termed "Functional literacy" which is literacy built around an occupation or craft as in the Khadi and Village Industries Board literacy programme. But, this will be naturally applicable only to selected population groups who are in employment. Hence to cover other illiterates another form of literacy education is necessary which may be termed as "adult literacy". Both these forms come under "Non-formal education" which may be defined as any organised educational activity outside the established formal school system and would include also continuing education for literates. The various methods of adult literacy education have already been described. The Chief requirements for organising a literacy campaign for the illiterates are:

A planning, implementing and administering authority,

A machinery for propaganda and motivations,

Organisations through which the illiterates can be contacted,

Establishments where the actual teaching can take place,

A devoted set of persons, with training, for teaching the illiterates and

Literacy materials like primers, supplementary books for the neo-literates, teaching aids and teacher guides and sufficient financial resources.

It must, however, be remembered that adult literacy programmes and campaigns form an answer to illiteracy only and do not form an alternative or parallel to the established school education system or formal education which must continue to be the basic requirement of educating the future generations.

The strategy of the recommendations made below for an adult literacy programme is to outline what can be established as a state-wide programme and has been drawn on the basis of the different illiterate population groups. Both functional literacy and adult literacy forms of teaching illiterates are advocated to suit the varied requiremetns of the sectors. A new method of literacy teaching has been propounded. As the financial resources, presently available, for such a programme is likely to be limited, the proposals envisage no new administrative and implementing machinery but the employment of existing organisations, which can be drawn into the effort. The greatest shortage seems to be in teaching materials and aids and personnel for the actual teaching work. The implementation of the programme can be in various stages, extended and expanded periodically every six months or an year. But the propaganda should be state-wide so as to awaken general interest in the programme. The first stage in the implementation suggested is to benefit the out-of-school children and the easily identifiable clientele as in an industrial organisation or factory. The chief motivating and basic concept of any literacy programme should be the total development of the citizen.

A state-wide campaign against illiteracy has not been designed or tried in Tamil Nadu. The formal school education system has been considered as a priority objective. But literacy

and adult education are still not treated on the same footing on a state level. The spread of school education alone cannot entirely dispose of the problem of illiteracy, particularly because of the high rate of population increase and the drop-outs in schools. In the long run, probably, the progress of universal free schooling may put an end to adult illiteracy. But over a short period the extension of school facilities will not in itself bring about a proportional decline in illiteracy. A campaign against illiteracy is, therefore, an essential factor. Accordingly fresh efforts must be put in to organise a programme for liquidating adult illiteracy. The campaign against illiteracy embraces both education in formal school system and the teaching of illiterates. The strengthening of the school system has already been dealt with.

1. A programme for literacy may be organised on the basis of the population groups (previously referred to as the second sector) to be benefitted. The population groups to be taken into consideration are:

the illiterate children up to about 17 years who are not attending school,

the youth and adult illiterates above the age of 17 years who are employed,

the self-employed adult illiterates,

the unemployed youth and adult illiterates,

the scheduled tribes and castes, and

the illiterate women.

These population sectors have to be separately considered as the approach and methods and systems of offering literacy opportunities have to be slightly varied in each case. For example, while an illiterate worker in a factory can easily be

located and approached through the establishment in which he works, an unemployed adult illiterate or self-employed adult illiterate cannot be easily located for the purpose of organising some form of literacy class. Similarly it may not be easy to motivate women illiterates to resort to literacy endeavours.

The other factor to be taken into consideration is the geographic areas of high illiteracy so that greater attention may be devoted to the implementation of the programme in these areas. On this basis, the principal centres for more intensive implementation are :

1. From empirical evidence it is clear that Dharmapuri and Salem are the two districts where literacy percentages are the lowest. Further, these two districts lie in geographic coninguity with two other districts of low literacy levels, namely South Arcot and North Arcot.

2. The highest population of scheduled tribes, among districts, is in Dharmapuri. The highest population of scheduled castes is in South Arcot and Thanjavur. These are the two educationally backward groups.

3. It may also be to the advantage from the point of view of liquidating illiteracy lo pay some intensive attention to areas of high literacy in the State because if literacy percentage in any area is raised to 70 per cent of the population, it has been found that the number of illiterates will not increase. From this angle, attention could be paid to the districts of Madras and Kanyakumari for implementing intensive programmes as the literacy percentages are high although they are geographically distant areas.

In order to cover the various sectors of the population, identified above, with literacy programmes, no single common strategy will answer the demands and diverse structures are

necessary to meet the needs and requirements of the sectors, which greatly vary. In order to intensify the programme in any geographical area, a multiplication of the literacy establishments would be necessary.

1. Special Classes

In the recommendations regarding the re-structurisation of the school system made in the monograph, it has been suggested that the primary school may be of four-year duration, which, would make available one class room in all Primary schools. It has also been suggested that 50 per cent of these classes may be converted as Pre-school classes and the other 50 per cent as special classes for the children who have dropped out from the regular system. This meets the demands of the children who are below 17 years of age and are out of school, who form the first sector for the literacy programme. The only difficulty is that there would be a heterogeneous age-group in such classes. This difficulty could be overcome by having two different timings for the classes—one for the age-group from 6 to 9 years and the other from 10 to 17 years. After a period of training in such non-formal classes these children should be admitted to the regular school stream in the appropriate classes.

2. Functional Literacy

For the employed illiterate youths and adults in industrial establishments and factories private and public and small industries the literacy programme should design functional literacy courses to be implemented through the establishments concerned. For this purpose the industrial establishments should be influenced, if not compelled by Government directives. The courses run by the Khadi and Village Industries Commission for their spinning establishments may be accepted as models

for designing similar courses. The Trade Unions could also be persuaded to join in this effort.

3. Welfare-cum-Literacy Centres

For the unskilled workers and casual labourers in occupations like house-building, road repairing, agriculture etc. and the self-employed adult illiterates like the fishermen, hawkers, petty traders, it will not be easy to provide functional literacy courses. The major difficulty is that there are no establishments, like what factory workers have, through which they could be approached. There may not also be any motivation to turn to literacy as they would be occupied by the problem of living which will be more acute than in the case of an industrial worker with an assured monthly income. Further the needs and requirements of these groups would vary. This illiterate sector is difficult to locate or contact. For these groups of workers other than the industrial employees, the self-employed individuals and the unemployed illiterates, the practical way of providing literacy seems to be through established "Welfare-cum-Literacy Centres". The specific suggestion is that selected schools in various areas, principally Primary Schools, after regular school hours, should function as these centres, where people in the area could gather and discuss their problems. In addition there should also be talks by experts on particular dominant occupations of the area like agriculture, fisheries etc. Cultural activities may be fostered in which the people of the area may take part, particularly in entertainments like *Kathakali*, drama and dance. The exhibition of documentary films may be an additional attraction. The personnel of the centres should help the people in writing letters, petitions and filling up ration card application forms. The presumption on which these sug-

gestions are made is that if initially the centres function as welfare centres, then they would attract the attention of the people of the area and they could be motivated sufficiently to start literacy classes. The timing of the classes should be adjusted to suit the convenience of the people. Probably two or three groups could be formed on the basis of their occupation and interest. The model of the Kerala Grandhasala Sangham Literacy could be adopted with variations as required to suit the needs of the areas.

4. Women's Literacy

The above centres (Para 3) should function as Women's Welfare Centres as well with separate days in the week forthem as it is doubtful whether, in the present existing conventions of the rural society the women would mix with men freely. Moreover for them to discuss their problems, exclusive gatherings would be more desirable. When such a helpful centre has been established, then the literacy work could be started. In the case of women useful occupations like stitching, sewing, embroidery could initially be started. And instead of talks on occupational items hey would benefit by talks on baby-care, health, nutrition etc. The other establishments which are already in existence through which literacy could be arranged for women are the *Kuzhanthaikal-Kappagams*, which are feeding centres for Pre-school children and in some cases nursing mothers. There are 807 such centres in the state under various organisations like CARE, (The co-operatives for American Relief Everywhere, 100, the Central Government Demonstration Feeding Programme (84) the Integrated Child Welfare Demonstration Projects (50), Family and Child Welfare Projects (24), Applied Nutrition Programme Centres (181) and other centres (368) as stated in the Institute publication "*Nutrition in Tamil Nadu*" by

Dr. Rajammal P. Devadoss. As these centres attract women and children, they could function as literacy establishments for women. One of the constraints in establishing literacy centres for women is the difficulty in getting them together. Hence the *Kuzhanthaikal Kappagams* where women gather could be beneficially utilised for literacy work

5. Scheduled Castes/Tribes Literacy

It is as already been seen that the literacy percentage of the Scheduled castes and tribes are far lower than that of other communities. Further the highest population centres for scheduled castes are South Arcot, Thanjavur, Chingleput and North Arcot and for Scheduled Tribes, Dharmapuri, North Arcot and Salem. Programmes for literacy must naturally be concentrated in these areas to help these sections of the society.

The Harijan Welfare Department of the Government is working for the uplift of these communities. All such welfare work should be linked with literacy programmes. The special schools and institutions for Harijans should be used as adult literacy centres. The population statistics show that 94·5 per cent of the scheduled tribes live in the rural areas, some of them in remote hilly areas and 82·7 per cent of the scheduled castes are in the rural areas. There are 73 schools (residential and non-residential) for tribal students and 833 schools for scheduled caste pupils in the state. These should be made the centres of adult literacy, specially for the scheduled caste and tribe adults.

II. Teaching methods have been dealt with earlies including a new method for Tamil teaching.

III. Teaching Personnel and Materials

In the State there are established Training institutions for teachers and lecturers of the formal school and college systems. But at present there is no state establishments for training personnel for adult literacy work. This is a handicap which has to be rectified if a large scale programme is to be successfully implemented. It is suggested that the State Board of Adult Education and the newly formed Madras University Department of Adult and Continuing Education be entrusted with the work of arranging short term courses for training of adult literacy and non-formal education personnel. Because of the lack of experience in this line, at the outset, probably, the guidance and help of persons in the line in other states like Kerala, Maharashtra etc. could be obtained.

A vital necessity for a programme of adult education is to have various types of Primers, reading materials and teaching aids for leaching adults, produced to suit the varying needs of the different population groups. The primers may be designed to suit the requirements of the five groups referred to earlier. The new method of Tamil Literacy teaching suggested would imply the production of teaching aids like charts of Tamil alphabets and word building sets of letters. The Tamil Nadu Board of Continuing Education and the Board of Adult Education of the Department of Education with the help of the State Council of Education Research and Training could nominate a committee consisting of members from each of the organisation to do the initial work in the production of primers, reading materials and teaching aids for the purpose, to be called the Adult Literacy Books Committee.

IV. An Adult Literacy Council

The powers for organising an adult literacy programme should be vested in a State Adult Literacy Council with autho-

rity delegated by the Government. The council may be composed of the Director of Non-formal Education of the Department of Education, the Director of the Board of Adult Education, the Director of Harijan Welfare, the Head of the Department of Adult and Continuing Education of the University of Madras, the Director of All India Radio, the Director of Television, a nominee from the chamber of commerce, a representative of the Indian Adult Education Association, two members from voluntary organisations engaged in the work, a representative from the Labour Unions, the Joint Secretary of the Department of Education and the Minister of Education, Government of Tamil Nadu, as Chairman. The Council should be entrusted with the work of planning an adult literacy programme on the lines suggested herein, initiate and implement the programme. The membership of the council has been designed to represent the State Government and the authority required, experts in the line,establishments which would co-operate in propaganda needed, organisations through which a large number of illiterates could be contacted and the voluntary organisations. In order to furnish the Council with adequate data and information, both the Directorate of Non-formal education and the Board of Adult Education could maintain a Statistics and Research section each. The council could authorise the training of literacy teaching personnel and production of books and materials for which recommendations have already been indicated.

V. Propaganda

The success of a literacy campaign is likely to be largely determined by wide, continuous and intensive propaganda. The two organisations which are closely in contact with the people are the religious institutions and political party organisations. Before any State literacy campaign is put on wheels, the good offices of these two organisations can be made use of to motivate

the people. The most popular and common media of communication with the mass of the people in the State is the Radio and to a lesser degree Television. The HYV Programme was greatly aided by the Radio broadcasts. The Family Planning broadcasts of contraceptives are regular features of the All India Radio. Similarly, slogans, songs, talks or plays should form a part of the daily Radio programme of all the AIR stations to motivate the illiterates in education and attract the attention of even the educated.

VI. A State Literacy Day

The 8th of September is observed as the International Literacy Day. Tamil Nadu could also, nominate a day and make a special effort for propaganda regarding the need for a State campaign to liquidate illiteracy in the State.

VII. Research

There is wide scope for research in 'adult literacy'. There are three types of research activity which can materially help the progress of 'adult literacy'. First, fundamental research, including long-term investigations which would help to establish conclusions and lay the foundations on which practical measures could be designed such as the psychology of the illiterates, training of teaching personnel, methods of teaching etc. Second, research which can be carried out by the operational staff, including response from the illiterates, teaching materials used, timing and other aspects of the project. Third, an evaluation research aimed to reform the approach and working. While the first of these could be undertaken on a University level, the second and third could be by the teaching staff helped by the fundamental researchers.

VIII. The Empirical Basis

There should be long-term empirical basis on which adult literacy projects are established. It has been seen that the

number of illiterates have been increasing over the last two decades, although the literacy percentages have increased considerably during the period. Further the rapid increase in population has also to be taken into account. Hence the projects should be so designed as to reduce progressively the total number of illiterates over a scheduled period. For this purpose the salient data to be taken into account is the 22·4 per cent decinnial increase in population, the increase in the age-group of 6-14 years, the decinnial increase of 7·8 per cent in literacy, the rate of urbanisation etc. so as to arrive at a target figure for provision of literacy facilities every year.

Conclusion

The trend of thoughts and suggestions in this monograph are principally meant to focus the view that the education system established in the State and its constituent schools to provide education systematically to the rising generations are now and will in the future be the decisive factor in training the children for individual advancement and equip them for work and thus contribute to the social and economic development of the society and state. The Tamil Nadu Government has been able to establish on a massive quantitative scale educational facilities which could absorb up to 100 per cent of the student population into institutions of the Primary level. It has also provided certain amenities and ameliorative measures for the disadvantaged groups and for the qualitative progress in education. This is indeed a great achievement which has to be preserved. These form a favourable setting and the necessary infrastructure for the development of a large-scale educational reform which could wipe off the present disadvatages the system is suffering from.

There appears to be nothing seriously amiss in the fundamental concepts or basic assumptions in the formulation of

educational policies of the State or in the structure of the system in the broad sense. Where the steps have been missed seems to be in the methodology of approach and application and in the failure to provide facilities for imparting qualitative education to meet the modern expansion in science and technology and to offer education to meet the convenience of the learners, particularly in the rural areas. Further, in the name of providing equal opportunities as a democratic principle and of meeting the constitutional commitments, the same uniform courses have been offered to almost the entire school-going population with little variation and has, consequently, failed to meet the needs of the children in a very wide spectrum of economic conditions and abilities. Hence, on the one hand, there are some changes and improvements to be made in the existing system and on the other some alternative arrangements are necessary to meet the requirements of those who are unable to benefit by the formal system in the present established form which has to be some form of non-formal education.

Bold steps have to be taken to sustain the existing education system and supplement it with non-formal education and there will, perhaps, be a period of trial and error before an optimum system can be set in course.

The greatest gap in education to-day is that between precept and practice. A vast storage of theories have been built up, from which practical measures can be drawn up, but the education system seems to stay in its comfortable routine. The precepts are known. "Education" is defined in the UNESCO publication "*The education of aduits, a world perspective*" as "Organised communication designed to bring about learning" The clientele is also identified. The child's right to education and the need to educate the illiterate are recognised. The gap

therefore, can be materially closed when the organised communication is restructured and adjusted to meet these demands or is supplemented by alternatives which together with the formal system will cater to the present day concept of life long education.

The foundations for such a life-long education for the full development of the individual are naturally to be laid at the Primary School stage. The present tendency to preach to the adults the concepts of national integration, social harmony and patriotic fervour. For defence of freedom of the land does not seem to be paying as no foundations have been properly laid. Hence the beginning should be made at the primary school level by teaching the child social graces of greeting the teachers and other children and to move and live in harmony with his fellows, besides acquiring skills by education.

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APPENDIX—I

STANDARDWISE STRENGTH OF PUPILS DISTRICTWISE IN I TO V STAGE FOR THE YEARS

MADRAS

Years	Class I		Class II		Class III		Class IV		Class V	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
1—8—1971	37,534	35,903	31,418	30,376	27,551	26,169	24,975	23,425	23,004	20,320
1—8—1972	37,351	35,905	31,850	30 537	27,998	26,977	25,100	24,216	22,246	20,734
1—8—1973	35,328	34,474	32,014	31,009	27,991	27,188	25,423	23,883	22,457	20,900
1—8—1974	34,779	34,395	31,010	30,717	28,128	27,535	25 418	24,390	23,515	21,284
1—8—1975										
				CHINGLEPUT						
1—8—1971	54 886	46,058	47,663	38,758	40,579	30,035	35,791	23,535	30 589	18 820
1—8—1972	53,061	43 241	48,677	39,104	41,666	31,742	35,343	24,491	29,936	18,935
1—8—1973	54,020	45,433	49,879	40,519	44,106	33,105	37,200	26,078	31,566	20 286
1—8—1974	55 230	46,393	50 057	41,298	44 851	33,750	39,033	27,815	32,334	21,216
1—8—1975										

SOUTH ARCOT											
1—8—1971	..	..	64,786	50,597	59,439	45,596	52,256	35,127	43,851	26,325	35,400	19,871
1—8—1972	..	..	65,391	50,512	62,467	46,613	53,737	36,525	45,793	28,629	37,553	21,309
1—8—1973	..	..	65,061	50,606	63,044	46,783	54,372	37,123	45,974	28,284	38,302	21,544
1—8—1974	..	..	71,444	51,562	68,770	47,066	58,839	38,492	47,679	29,999	41,430	22,318
1—8—1975												
THANJAVUR												
1—8—1971	..	..	69,406	58,939	64,823	54,561	57,752	44,752	50,901	36,927	43,780	29,325
1—8—1972	..	..	69,730	60,305	65,164	54,661	58,292	46,267	50,695	37,280	43,884	29,638
1—8—1973	..	..	70,039	58,984	66,436	55,833	59,891	47,913	52,882	39,276	44,585	30,951
1—8—1974	..	..	65,882	57,361	61,887	52,655	56,627	46,217	50,706	38,979	44,451	30,383
1—8—1975	..											
MADURAI												
1—8—1971	..	..	77,033	64,287	65,877	53,940	56,984	45,377	49,742	36,881	41,887	29,437
1—8—1972	...	...	79,977	66,477	67,082	55,021	60,416	46,271	49,849	37,137	42,299	28,792
1—8—1973	..	..	77,094	64,798	71,221	58,068	61,813	48,003	53,135	39,550	44,278	31,145
1—8—1974	..	..	78,151	65,670	70,693	57,627	62,773	50,106	55,460	40,516	46,196	32,805
1—8—1975												

RAMANATHAPURAM											
1—8—1971	..	..	58 365	48,325	51,648	42,320	46,530	35,877	40,051	28,760	34,596	23,342
1—8—1972	..	..	58,906	47,847	53,462	43 720	47,253	36,759	40,725	30,323	38 933	27,651
1—8—1973	..	..	60,497	48,446	53,636	42,810	48,092	38,262	41,063	31,088	38,813	27,627
1—8—1974	..	..	61,078	49,834	54,752	44,591	49,451	38,281	43,188	32,372	38,431	27,051
1—8—1975	..	..										
TIRUNELVELI												
1—8—1971	..	..	58 313	49,408	52 868	46,098	48 229	40,866	43,604	34,933	40,680	28,689
1—8—1972	..	..	59,107	50,441	54,312	46,123	49,416	41,404	44,408	35,657	39,726	30,632
1—8—1973	..	..	60 131	51,918	56,647	48,626	50,814	42,585	45,410	36,927	40,668	31,710
1—8—1974	..	..	64,247	53,608	57,921	50,137	53,165	44,748	47,987	38,992	42,851	33,849
1—8—1975	..	..										
KANYAKUMARI												
1—8—1971		..	24,273	21,050	21,903	19,367	20,975	18,272	18,646	16,040	16,532	14,131
1—8—1972	..	..	24,195	21,572	21,776	19,167	20,493	18,811	19,139	16,924	16,715	14,215
1—8—1973	..	..	23,709	21,208	22 203	20,343	20,682	18,904	19,252	17,437	17,239	15 034
1—8—1974	..	..	25 000	22,409	21,865	19,249	22,430	19,405	19,782	17,467	17,149	15 852
1—8—1975												

NORTH ARCOT											
1—8—1971	..	..	68 178	54,153	62,004	47,691	55 453	39,869	48,302	31,212	41,270	23,874
1—8—1972	..	..	66 853	52,048	62,765	48 552	55 343	39,920	49,295	32,857	41,433	25 499
1—8—1973	..	..	65,786	52,427	63 514	49,390	56,275	40,911	49,340	34,576	42,145	26,031
1—8—1974	..	..	66,712	59,261	63,297	48,699	56,952	42,352	50,309	34,954	42,365	26,921
1—8—1975												
SALEM												
1—8—1971	..	..	55,475	41,040	45,584	31,838	38,659	26,349	32,634	20,877	27,564	16,710
1—8—1972	..	..	54 480	40,913	46,338	33,445	39,484	26,900	32,962	21,702	27,366	16,953
1—8—1973	..	..	56,189	41,718	46,454	34,344	39,947	27,775	32,752	21,724	26,918	17,518
1—8—1974	..	..	50,047	37,743	48,799	35,674	41,259	29,631	34,659	22,944	28,646	17,104
DHARMAPURI												
1—8—1971	..	..	34,614	26,401	29,178	20,296	23,240	14,523	18,288	10,126	14,556	7,507
1—8—1972	..	..	33,325	25,253	29,368	20,531	22,850	15,133	18,151	10 531	14,738	7,688
1—8—1973	..	..	36,314	27,890	30,137	21,592	24,858	15,957	19,248	11,277	14,729	8,015
1—8—1974	..	..	36,644	28,428	39,184	20,846	24,720	16,175	19,842	11,596	15,161	8,329
1—8—1975												

TIRUCHIRAPALLI											
1—8—1971	..	..	69,023	55,602	61,955	49 979	54.475	41,090	46,607	32 334	40,513	24,811
1—8—1972	..	..	70.545	59,174	63,467	50 310	56,029	41,423	48 478	33,482	41,518	26,133
1—8—1973	..	..	71,824	59,952	64,577	51,440	57,397	43,437	49,452	34,117	43,222	27,210
1—8—1974	..	..	76,537	60,576	68,538	53,005	60,603	45,105	52,831	36,265	45,401	30 026
COIMBATORE												
1—8—1971	..	..	75,105	61,172	63 702	50,955	55,334	41,839	46,872	32,683	40,199	26,347
1—8—1972	..	..	74,555	62 013	67,786	53,502	57,206	42 682	48,573	34 342	40,055	26 540
1—8—1973	..	..	74,040	60,696	65,713	52,852	58,720	44,704	49,550	35.759	40,521	28.096
1—8—1974	..	..	76 404	65,305	68 900	56,313	59,009	45 604	50 994	37 541	41 934	28 865
NILGIRIS												
1—8—1971	..	..	8 564	7,743	7,839	6,961	6,889	6,888	6,349	4 928	5,601	4,143
1—8—1972	..	..	8 886	7,787	7,941	6,870	7,114	6.145	6,257	5.197	5,618	4.362
1—8—1973	..	..	8 917	7,814	8,047	7,193	7,201	6,264	6,327	5.327	5.716	4,465
1—8—1974	..	..	8 965	7,917	8 092	7,211	7,243	6,322	6,373	5.401	5 770	4 537

SOURCE :—Unpublished statistics from Director of Public Instruction., Madras.

APPENDIX—II

A list of non governmental organisations or institutions engaged in adult and functional literacy in Tamil Nadu.

1. Ramakrishna Vidyalaya College of Rural Higher Education: Educating 300 children in three villages not already in school.
2. Progress Saving School, Cheyyar: Training 3000 Harijans in citizenship and literacy.
3. Creche Training Centre (CSI), Kotagiri and Tiruchy: Training 37 girls in pre-school education.
4. Creche Training Centres (CSI), Tiruchi, Thanjavur and Coimbatore: Pre-primary education for 140 children.
5. Navajeevam Centres at Udumalpet and Karur: Training in work-oriented functional literacy for 180 school drop-outs.
6. Y.M.C.A., Madras, Mudichur, Madurai and Nagercoil: Training in functional literacy, tailoring, hygiene, nutrition and home management to 400 school drop-outs and adultilliterates, girls and women.
7. American College, Madurai: Training 35,000 slum dwellers in work-oriented literacy and craft training.
8. Government Arts College, Rasipuram : Training 25 persons in functional literacy.
9. Y. M. C. As in Madras, Salem, Coimbatore, Madurai and Tiruchirapalli . Training 3,000 youths and adults in functional literacy, self-employment, community development, health and hygiene.

10. Gandhigram : Training 600 rural adults in functional literacy, 200 farmers in improved farm practices, 300 men and women in family planning and 220 workers in rural crafts.

11. Chikanna Government Arts College, Tirupur: Training 60 school droputs and adult illiterates.

12. Sacred Heart College, Tirupathur : Training 651 young persons in language and vocational guidance.

APPENDIX—III

Table 1 : Population, area, density etc by district

Chart 1 : Urban and Rural population

Table 2 : Rural and Urban population by district

Table 3 : Percentage of workers

Table 4 : Scheduled Castes and Tribes

Table 5 : Age composition of population

Table 6 : Schools, pupils, teachers as on 1-8-1974

Table 7 : Institutions in the State—Managementwise

Table 8 : Comparative statement of schools 1966—1974

Table 9 : Actual percentage of enrolment 1956—1974

Table 10 : Disposition of students in the districts

Table 11 : Comparative statement of schools, teachers population etc. 1-8-1974 in districts

Table 12 : Flow of students from class I to V.

Table 13 : Boys and girls

Table 14 : District-wise figures of drop-outs 1971-1974.

Table 15 : World illiteracy

Table 16 : Illiteracy in Indian states.

Chart 2 : Literacy in Tamil Nadu—District-wise.

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